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OF THE

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FOR

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REPORT OF THE DEPARTMENT OF AGRICULTURE AND STOCK FOR THE YEAR 1935-36.

TO THE HONOURABLE THE SECRETARY FOR AGRICULTURE AND STOCK.

SIR,—I have the honour to present herewith my report for the year ended 30th June, 1936.

Seasonal Conditions.

In the Southern Division the year commenced with an excellent series of rains, ranging up to 7 inches over the western pastoral lands. On the Darling Downs and southern coastal country these early falls were much lighter, although sufficient to ensure a good stand of grain and fodder crops and the growth of root crops, as well as the establishment of a fine sward of winter grasses. August was a dry month of westerly winds and heavy frosts which seriously retarded crop development. Heavy rains in mid-September throughout the southern agricultural and south-western pastoral areas altered the whole situation, and provided the best spring for very many years in those parts of the State. October was remarkable for heavy thunderstorms of widespread precipitation. Hail caused serious individual crop losses in some localities, but conditions generally favoured the crops sown for the summer. Blistering westerlies following light storms marked November weather, and crops and pastures suffered a severe check in consequence. Early in December the situation was relieved by timely and well-distributed rains, followed at intervals by light refreshing storm showers. January was very wet, and farmers were enabled to prepare their land for autumn plantings. February was disappointingly dry, and gaugings generally were lower than average. Soaking rains fell in March, the benefited area extending westward throughout the Maranoa district, and winter pastures were assured over a large section of the State. April was a month of light showers and wilting crops and pastures. Conditions did not improve during May, and with the approach of winter stockowners were faced with a season of anxiety. West of Dalby, conditions were better, however. Useful rains fell in June, enabling wheat farmers to proceed with their seeding for the following crops. Sowing was completed earlier than usual, but in the absence of soaking showers the present outlook is not encouraging. Winter fodders and grasses are struggling to become established.

In the Central and Northern Divisions the year was one of the wettest on record, although some districts—notably Townsville and Ayr—experienced a dry season of unprecedented severity. Relief was delayed until the northern wet seasonal rains in January. Winter rains, commencing early in July, were unusually heavy, but the following months from August to December were marked by a series of dry periods broken infrequently by light and patchy storms. A deluge commenced in December. From January to March, flood rains were recorded in most northern districts. Among the registrations for February were the remarkable totals of over 15 inches at Atherton, over 16 inches at Bowen, 28 inches at Mackay, 12 inches at Mareeba, and nearly 29 inches at Townsville. March measurements at Mackay reached the extraordinary aggregate of 31½ inches. At Bowen, over 26 inches fell, while Townsville had a further 9½ inches. Other recording stations registered somewhat lighter falls, although at most of them flood rains were recorded at one period or another. Naturally farm work was very difficult, if not impossible, in the water-logged fields, especially in the northern canegrowing districts.

Inland, seasonal conditions were generally good. Unfortunately, losses of drought-weakened and newly-shorn sheep offset, to some extent, the benefits of heavy winter rains. Good and regular rainfall and plenty of grass and water were a happy experience of the year over a vast extent of the western pastoral country. As a result of the recent winter rains, for both the farmer and grazier there is little ground for anxiety in the immediate seasonal outlook.

Agriculture.

Wheat.—Wheatgrowers on the western fringe of the Darling Downs had the benefit of better seasonal advantages than those farming other parts of the grain-growing region. Production was probably the highest on record in the Dalby district. Weather for the harvest was fair, and resulted in the bagging of 2,696,786 (estimated) bushels, which is considerably below the average of 3,345,000 bushels for the ten-year period, 1926-36. The average acreage yield, 9·30 bushels, as compared with 18·38 bushels in 1934-35, is a reflection of local climatic adversity. Florence remains the most popular variety grown in Queensland, with Three Seas, Flora, Pusa, Gluyas, and Cedric in that order. The value of early fallowing and conservation of subsoil moisture was again demonstrated in increased returns from the farms on which cultural methods advised by the Department were practised.

Full particulars of experimental work in grain improvement and propagation are contained in an annexed report.

Barley.—The barley yield—58,601 bushels—was less than half that of the previous year, due also to lack of rain at critical periods of growth. The short crop necessitated the importation of malting requirements from other States.

Canary Seed.—The yield of canary seed approximated 1,200 tons, which was equal to that of the previous season's crop.

Maize.—An increased area was sown in the south, but only a light crop was harvested. Better crops, relatively, were grown on the Atherton Tableland, where the yield approximated 23,000 tons. Maize has come to be regarded as an important dry-season standby for stock in the western pastoral areas, which provided a good domestic market for grain throughout the year. As a green fodder and silage crop it is becoming more extensively grown in the dairying districts. Maize improvement work was continued with success in the Mary Valley, but the seasonal circumstances did not favour high production in other districts.

Potatoes.—Production of potatoes was below average, due chiefly to dry weather, although moth-infestation was a serious limiting factor in some districts. The spring crop gave the best results on the Darling Downs. Farmers in the Central and Northern Divisions are supplying an increasing proportion of local requirements. Trial plots were continued on the South Coast.

Peanuts.—The cropped area—14,000 acres—was greater than that of the year before, when a record bagging was obtained. The estimated production is 5,300 tons. This industry is now on a firm foundation, and Queensland peanuts have an established reputation for high quality on the markets of the Commonwealth. Peanut-growing is expanding in the Rockhampton and Atherton districts, where local requirements are fully supplied.

Sorghums.—As an alternate grain crop, for pigs and poultry especially, saccharine sorghums are becoming appreciated more widely. As a supplement to natural pastures they have proved of great value on the Darling Downs, where stock feeding became necessary during the autumn.

Tobacco.—Flood rains in the north and drought in the south formed a striking contrast in climatic conditions in the tobacco districts. In the wetter regions, however, little damage was caused on well-drained lands. The finest crop of the year was harvested at Miriam Vale, although in every district the average quality was good.

Late crops in all areas made excellent growth, especially around Mackay and Sarina, where the estimated yield was 800 lb. an acre. The aggregate yield for the year for the whole of the State is estimated at nearly 2,000,000 lb. Market values were fair, and in some instances high, due to the enhancement of the reputation of Queensland tobacco, as well as to the tariff protection given to the industry.

Average prices were fair, ranging up to 3s. 0½d. a lb. As much as 4s. a lb. was paid for some of the leaf marketed.

In Texas and the contiguous territory, tobacco-growers had a good year. A definite improvement in quality has been achieved. Depletion of surface water caused irrigationists some anxiety during a series of dry spells. Blue-mould damage was appreciably lower than it has been for years past.

Departmental field work in respect of all phases of the industry has been extended. This work included fertilizer trials, variety trials, seed selection, propagation, and exploratory plots. Registered tobacco-growers now number 906.

Instruction in preparing and packing leaf for market was given freely, and values are to a large extent a reflection of improved methods under Departmental supervision. Crops under constant and thorough cultivation, as well as irrigation, demonstrated the benefits of good farming.

Other Field Crops.—Accounts of instructional and experimental work performed in respect of other farm crops are given in the reports of the Director of Agriculture and his staff, which are annexed.

PASTURE IMPROVEMENT.

Numerous introduced and native pasture plants are underoing test. Winter pasture trials also formed part of the year's experimental work of the Department. Included in the investigational programme were the testing of recently introduced pasture plants in different districts; establishment of propagation plots of the more promising grasses and the distribution of seeds and roots to interested farmers and graziers; trials of pasture plants in newly-settled districts; control of pasture weeds; and top-dressing experiments on lucerne stands. A summary of all these activities is among the annexures hereto.

TROPICAL AGRICULTURE.

The establishment of the Bureau of Tropical Agriculture was one of the most important developments of the year. In Queensland, with a vast proportion of its territory lying within the tropics, the scope for an extension of tropical agriculture is enormous. Tropical Queensland is rich in natural resources. The remarkable development of the sugar industry provides impressive evidence of its extraordinary fertility. The world position of the sugar industry, however, makes it imperative to expand our production of other tropical crops as alternatives to cane-growing. With that object in view, the Bureau of Tropical Agriculture was brought into being.

The preliminary work of organisation necessarily occupied many months, and an abnormal and prolonged wet season added to the difficulties of establishment. Nevertheless, within the year much important work was accomplished according to plan, and of which an interesting account is contained in the Director's report incorporated herein.

AGRICULTURAL RESEARCH.

Appreciating the fact that rural industries must adapt themselves to changed conditions and new trade requirements, which form part of the world movement for greater efficiency and stability in agriculture, the Department regards research into the manifold problems of primary production as one of its chief functions.

The activities of the Agricultural Branch have been widened by the appointment of special research officers to plan and conduct field experiments and other work of first importance to the farming industry.

Work undertaken or planned under this head includes soil research; grass and pasture research; field husbandry research, covering the cultivation of wheat, baking tests of home-grown grain; maize and other cereals, tobacco, potatoes, onions, fodder and leguminous crops; horticultural research; viticultural research; cold storage research; entomological and vegetable pathological research; and further studies in cream and butter grading and other dairying problems.

In respect of animal husbandry, the research programme covers sheep and wool investigations, cattle-breeding, animal nutrition, stock diseases, parasites and pests, and general veterinary research.

The progress made along defined lines is described in detail among the annexures hereto.

COTTON.

For cotton-growers the year was not satisfactory from the point of view of the average acreage yield. Had the average been higher, a definite advance on all fronts could be recorded.

As a result of the Federal fiscal policy the Australian cotton market is improving rapidly, and it was unfortunate that seasonal circumstances were against the ginning of a heavier crop. Spinners have had, in consequence, to import fibre of a type produced in this State, and that could have been supplied had more favourable conditions ruled.

The new system of payment on the basis of lint instead of seed cotton has proved of advantage to the grower and the industry generally.

As a means of relieving the problem of unemployment, the value of the cotton industry was shown conclusively during the past year. The development of this industry to its fullest possibilities is, therefore, a matter of major economic and social importance.

Improved farming practice is reported from every cotton district, and it is evidence of the close co-operation of the cotton-grower with the Department. The standard of cultivation generally is very high. Farmers are finding that they can reduce field costs materially as well as add to crop returns by practising cotton-growing in rotation with pasture grasses.

Up to the 19th June, 13,752,323 lb. of seed cotton had been received at the ginneries—a marked reduction on the aggregate consignments at the corresponding period of last year, showing clearly the influence of unsatisfactory seasonal conditions. At the beginning of the departmental year 3,252 growers reported 60,734 acres as having crop possibilities, as compared with 3,139 growers and 56,682 acres for the previous season.

Clear evidence of the merits of planting cotton on either newly-ploughed virgin country or old cultivations that had been under grass for several seasons was obtained. Gains up to 700 lb. of seed cotton per acre are reported.

The quality of the crops was influenced naturally by the adverse seasonal conditions, resulting in a higher percentage than usual of softer fibre. Thinning tests indicate that either unthinned or closer spaced cotton tends to produce inferior lint in dry seasons.

Results obtained at the Cotton Research Station have again confirmed conclusions arrived at in previous years. They are summarised in the report of the Director of Cotton Culture.

The determination of suitable varieties for a wide diversity of soil types was an important phase of the field experimentation work carried out in the course of the year. New strains of the leading varieties in cultivation have been evolved. This work is continuous at the several breeding centres in the Callide Valley and Upper Burnett. In all these projects the requirements of Australian spinners are kept well in focus.

Extension and advisory services, in addition to experimental work, contributed materially to the progress of the industry during the year. Personal contact with growers by means of meetings of producers and farm to farm visits has been regularly maintained. In this way, growers have been kept conversant with the fundamental principles of cotton-growing.

The system of grading seed cotton in conformity with the Universal Standards for lint was again used, to the general benefit of the industry. In addition to the ordinary grading, the system of selling certain qualities of lint against type samples was instituted this season. It calls for even more exacting work from the graders.

In contrast to the experience of the previous season, pest and disease attack was very severe during the year. Crops in the Central District and Upper Burnett suffered through the migrations of the web-spinner, cutworm, and corn-ear worm. Rutherglen bug attacked the cotton in the Mundubbera and Central Burnett districts. Jassids also made an appearance in many crops, causing heavy loss. The light spotting of lint referred to in my last report continues to affect the cotton grades, and investigations of means of limiting the loss it causes are proceeding.

FRUIT.

With an expanding market for practically all our orchard products, the prospects of the fruitgrowing industry were never more encouraging. This pleasing state of affairs is attributable largely to improved organisation and modern marketing methods, which have stimulated a demand for all we have to offer, especially processed tropical fruits. In fact, many of our products are consistently in short supply, particularly those required for canning and other forms of processing or manufacture.

As the industry progresses, the demand for scientific investigation of its peculiar problems increases. Cultural practices call for re-examination and possible revision. Soil research—covering fertilizing requirements, erosion, land utilisation, and other matters—is of vast importance to the industry, and investigational work has been influenced by that fact.

In respect to some of our deciduous fruit problems, the co-operation of the Commonwealth Government is acknowledged.

In every fruitgrowing district climatic conditions were variable throughout the year. The advantage of a good spring was offset by a dry summer—except in the far North—the effects of which were reflected in reduced yields.

Bananas.—The difficulties created by surplus banana production and its twin problem of prices have been overcome to some extent by the utilisation of marginal and sub-marginal land for purposes other than banana-growing. Nearly 5,000 acres of neglected banana plants have been destroyed in the past year, while less than 2,000 acres of new land have been planted. It is estimated that 6,000 acres of plants will be destroyed in the course of the ensuing twelve months, and that approximately 3,000 acres will be planted. The banana acreage is thus being reduced progressively until production will soon be restricted practically to land most suitable for it. A similar policy has been applied in

New South Wales, a policy designed to influence the industry beneficially by inducing greater efficiency, leading to better quality production and commercial stabilisation.

Values have shown a consistent upward trend, which may be regarded as evidence of returning prosperity. Domestic consumption is increasing, with the result that consignments to Southern markets have diminished greatly in volume during the past two years.

Adequate precautions have been taken against the outbreak of bunchy-top disease in areas of possible occurrence, and against its spread from localities in which there has been a recurrence.

In disease and pest control, growers have co-operated wholeheartedly with the Department. Culturally, the efficiency of the banana industry has definitely improved. The benefits of sound orchard practice have become more widely realised. Scientific ripening methods are now employed in every important marketing centre in the Commonwealth.

Variable weather conditions were against high production on the near North Coast. The marketing of much immature fruit was a consequence that carried its own condemnation. Investigations into quality grade standards are proceeding, and as a result it is anticipated that a uniform system of grading, ensuring the marketing of fruit of high quality, will shortly be evolved.

The Banana Industry Protection Board continued to direct the policy of the industry during the year, to the advantage of all concerned.

Pineapples.—Pineapple-growing has developed into one of the most important branches of the fruit industry, and with the extension of processing facilities it is now a considerable factor in our export trade. Recent scientific research has demonstrated the possibility of at least doubling present yields, which until recently were no more than 200 to 250 cases per acre. The scope afforded by improved cultural practices is illustrated by the winter crop of 2,000 cases taken by one grower from less than two acres. Such a remarkable acreage increase in production, involving only a comparatively small additional outlay, must necessarily have an important influence on the industry in general.

The possibility of a large expansion in the export trade for canned pineapples is realised, and field instructional policy is being shaped accordingly. It is considered, however, that in respect of increased production progress should be regulated wisely, for the economics of gluts —the curse of primary industry—still requires careful study. With an established reputation for quality, Queensland canned pineapples are already assured of an increasingly favourable market overseas.

Citrus Fruits.—There was little change in the citrus fruit situation during the year, except the pleasing effect of better prices. At present, prospects of profitable expansion are limited, for over-production remains a serious problem throughout the Commonwealth. Much is expected from the negotiations now proceeding in respect of the opening of the New Zealand market to Australian fruit.

The commercial citrus acreage has been reduced, especially on exposed coastal country, in which soil erosion has become a serious problem.

In the Gayndah district the planted acreage is expanding steadily, climatic and other conditions being conducive to the production of citrus fruits of excellent quality.

The growing demand for grapefruit has encouraged citrus orchardists to broaden their range of production.

Deciduous Fruits.—Hail and dry weather reduced market consignments from the Stanthorpe district. It was an unfortunate circumstance that many progressive growers had a repetition of the experience of the previous year, when so many crops, ripe for picking, were destroyed by hail. Such an experience is naturally disheartening, especially to orchardists whose industry and efficiency would otherwise have undoubtedly ensured success.

Despite the fact that the year's rainfall was well below average, good crops were produced as a result of sound orchard practice, by which sufficient soil moisture was conserved to enable the trees to bear a full crop.

Apple values were an improvement on the prices of the previous year, and the quantity marketed was up to the average.

The standard of quality of the stone fruit crop was generally good, and prices in the main were also satisfactory. The grape crop was light, but the berries harvested were of excellent quality. Market values remained steady at a fairly high level. In competition with Southern suppliers, Stanthorpe grapes gained and retained market favour, and an advantage to the extent of 4s. to 5s. a case—the difference in purchasers' appreciation of quality.

Through a trial shipment to London, useful data were recorded, although otherwise the returns were not entirely satisfactory.

Pests and Disease.—Comparative freedom from fruit-fly attack was among the pleasant experiences of the term under review. On the other hand, codling moth infestation was worse than it had been for years. The wider incidence was probably a result of the hail visitation of the previous season which naturally caused a cessation of regular spraying practice. The control measures applied are discussed elsewhere in this review.

Brown rot is an inevitable result of hail damage at Stanthorpe, but, fortunately, only stone fruits were affected. Powdery mildew is not so much a menace as it used to be. Nature was very kind to grape growers outside the hail-stoned localities, and disease among the vines was practically non-existent. Plum spot, and "little leaf" or "rosette" in apples remain, however, diseases of major importance in deciduous fruit districts.

Packing and Marketing.—The system of selection and sizing fruit for market, in addition to regular instruction in packing by officers of the Department, has enhanced the reputation of Queensland fruit on both domestic and interstate markets. Growers are naturally appreciative of the improved prices and other benefits obtainable from this service. As a rule, grade standards have been maintained.

Apple exports totalled 25,700 cases, as against 8,000 in the previous season. But for serious hail damage the quantity of exports would certainly have been doubled. Prices were fair, although disappointingly lower than anticipated values. For the first time Stanthorpe apples retained their identity on the Southern markets, and won favourable comment on their quality and the careful packing of consignments. Unfortunately, for the reason stated, supply was not equal to demand.

On the question of export, however, it is the opinion of departmental officers that Stanthorpe growers would probably obtain better returns by cold storing favourite varieties and regulating their supply to Queensland markets.

The country distribution scheme initiated by the Department, by direction of the Minister, has proved very successful and of definite benefit to people in remote parts of the drier regions of the State who, in ordinary circumstances, would have the utmost difficulty in obtaining regular supplies of fresh fruit.

Vegetables.—Seasonal vagaries and price fluctuations, generally trending downwards, were the main depreciatory factors in the vegetable grower's year, which was generally unsatisfactory.

An improvement in fertilizing practice, thorough cultivation after every fall of rain and better root stock are among the main desiderata in orchard practice in the Granite Belt. The root stock problem is of particular importance, and with the co-operation of the Council for Scientific and Industrial Research early success in this connection is anticipated.

NEAR NORTH COAST AND GAYNDAH DISTRICTS.—A protracted dry period and Rutherglen bug infestation nullified the effects of a good spring along the littoral lands. Soil erosion has become an alarming feature of farming on the near North Coast.—In some cases, weather-wash deposits were three feet in depth on the lower orchard lands. The problem of control is a difficult one on established orchards. A modified system of contour drainage is being tried under the auspices of the Departmental Experimentation Committee.

Pineapple growing is increasing under the stimulus of extending markets for both the fresh and processed products. Changes in fertilizing practice and the application of new ideas in cultivation bids fair to double production in the near future.

CENTRAL COASTAL DISTRICT.—Frosts offset the benefits of a wet spring in the fruitgrowing districts around Rockhampton and other places along the Central coast.

Cultivated areas have expanded steadily in respect of pineapples, citri, papaws, tomatoes, and grapes. Banana production, however, was lower.

Date culture is attracting considerable attention, especially in inland areas where artesian water is available. Dates grow well near Rockhampton, but, unfortunately, they are very susceptible to fruit-fly attack. Citrus fruits cropped heavily, causing slight gluts in the course of the season. The winter pineapple pack was poor, but a better summer crop was a compensation. Tomato pickings were light, although approved methods of pest and disease control have improved the future prospects of this important crop. Mangoes yielded lightly, but prices were very satisfactory. Papaw cultivation is progressing with the increasing demand for this fruit. The same remark applies to passion fruit growing. Grape pickings were heavier, and market values higher than in the previous year. Custard apples, strawberries, melons, rosellas, and other fruits, at present of minor importance commercially, also cropped heavily for a favourable market.

BOWEN DISTRICT.—Irrigation was necessary until the wet season commenced in December, after which nearly every day had its deluge. A good season, high quality and fair prices for most fruits were the rule around Bowen.

Greater attention is being given to the selection and care of mango trees with a view to further developing an improving export trade.

General progress was made in all branches of horticulture during the year.

THE FAR NORTH.—From Cardwell northwards, an excellent season was experienced.

Citrus fruits still form the main crop, although the year's production of all fruit crops was heavy. Pests were, of course, the limiting factor and chief among them were fruit-fly and fruit-sucking moth.

North Queensland, curiously enough, has not developed banana growing to any extent in recent years. In fact, north of Townsville it may be regarded as a declining industry that cannot even supply local demands. The cutting of immature fruit and primitive ripening methods are probably responsible for the indifferent reputation of the North Queensland banana. Instructional effort is being brought to bear to rectify this horticultural anomaly in a district suitable for high standard production of all tropical fruits. North of Innisfail the mango crop was a good one. Several varieties of outstanding quality have been segregated and listed among those worthy of propagation and general planting. All the varieties selected have the virtue of being fibreless.

All other tropical fruits produced on a commercial scale cropped heavily and found fair to highly favourable markets. Many other fruits of no commercial importance as yet are under observation as to their probable value in our horticultural economy.

Sub-tropical and temperate fruits are also grown extensively in North Queensland, where climatic conditions are suitable. On the highlands, especially the Atherton Tableland where the climate is delightfully mild throughout the year, the cultivation of apples, pears and stone fruits is extending.

Nut Culture.—Nut culture, particularly the Queensland nut, is receiving the close attention of the Department, with a view to its economical exploitation. Several plots of Queensland nuts are under observation for the determination of response to various treatments. Their fertilizer requirements are also being studied. No additional data have been recorded.

Instructional Work.—The field instructional programme of the year covered a very wide range of activities, and included selection of orchard sites, soil studies, land preparation, variety studies, plant selection, propagation, planting methods, drainage, soil erosion studies and prevention, tillage, fertilizing practice, top-working of unprofitable trees, pruning and thinning, spraying, and other forms of pest and disease control, handling, packing and marketing. In almost every case, growers have responded wholeheartedly to the efforts of the Department. The continued development of this spirit of co-operation and mutual confidence are among the pleasant experiences of a difficult year.

General.—School packing classes are a regular and important feature of the educational activities of the Fruit Branch. The attractive appearance of market consignments and its definite relationship to improved prices is traceable, to an appreciable extent, to the training of the young idea in the fruit-growing centres.

Nurseries registered in Queensland now number 163, of which 67 are within the Greater Brisbane boundaries. Citrus budwood selections of 50,000 A grade varieties were made in the course of the year. Before long it should be possible to obtain all of the nurserymen's requirements from departmental budwood plots.

Rail and port inspections were carried out systematically, and, as shown in attached tables, the fruit trade balance was in favour of Queensland. Interstate exports (last year's figures in parenthesis) included:—Bananas, 304,933 (419,670) cases; passion fruit, 8,016 (5,958) cases; citrus fruits, 16,237 (6,929) cases; tomatoes, 425,356 (373,281) cases; strawberries, 9,458 (9,389) trays; grapes, 13,297 (8,756) cases; egg fruit, 654 (1,393) cases; mangoes, 7,345 (6,911) cases; pineapples, 365,998 (302,722) cases; miscellaneous fruits, 55,488 (99,272) cases. Fruit imports totalled 881,021 (924,567) cases.

BANANA INDUSTRY PROTECTION BOARD.

The supervision of the banana growing industry was continued to the advantage of the industry by the Banana Industry Protection Board.

Bunchy top, as the result of effective control measures, has made no further advance northwards. Intensive inspection within the quarantine area is being maintained.

Precautions against the spread of Thrips (*Scirtothrips signipennis Bagn.*) to districts in which its presence has not yet been reported, are proving effective, and control experiments are still being carried out by the Division of Entomology and Plant Pathology.

During the planting season about 2,500 acres were planted, while approximately 6,000 acres were eradicated or are in course of eradication, for the reason that the plantations ceased profitable production or became neglected on account of the low ruling prices. This eradication removes potential breeding grounds for plant diseases, and, with the increase in prices now being received, will to some extent aid growers in keeping their new plantings in reasonably clean order. This would not be possible with thousands of acres of neglected plants forming a breeding ground for disease.

In the South Coast district close on 300 acres of neglected and diseased plantations were eradicated through the co-operation of the Department of Labour and Industry.

DAIRYING.

For dairy farmers, the year was very disappointing. Instead of the summer bringing the usual series of heavy, steady, soaking rains, falls were scanty and patchy. In fact, in many localities there was no really wet season at all. Consequently, the record output of dairy produce of the previous year was not maintained. The actual manufacturing total was 112,499,567 lb., as compared with 130,233,768 lb. in 1934-35, and 123,918,257 lb. in 1933-34.

The general statistical position shows an apparent increase of 5 per cent. in domestic butter consumption. Approximately 70 per cent. of the entire output was exported to Great Britain, and 5 per cent. went on to interstate markets.

Good quality standards were maintained, and in competitions at home and abroad Queensland butter was listed among the highest awards. It is gratifying to report also the continuance of high manufacturing standards. Factory faults were practically negligible. By an arrangement between the Commonwealth and State Governments, grading for export is now controlled by the Federal authorities.

Although the weather conditions were so adverse during the greater part of the year, a notable improvement in the quality of cream is reported. When it is considered that in dry seasons it is very difficult to avoid weed taint and other deleterious flavours in cream, this improvement in factory supplies is very satisfactory. Recent legislation providing for the better organisation and control of cream transport has had, no doubt, some influence on the increase in high quality deliveries.

Grading returns reflect a general advance in the efficiency of the industry in Queensland. Choicest butter constituted 54·97 per cent. of the total; first quality, 34·39 per cent.; second, 9·06 per cent.; third, 1·46 per cent. Only 0·12 per cent. of the aggregate of 1,514,981 boxes submitted for export was rejected by the graders.

Cheese production amounted to 9,149,113 lb., as compared with 12,185,276 lb. in 1934-35, and 13,881,766 lb. in 1933-34. Although there has been some slight improvement, quality is still unsatisfactory. Of the cheese graded for export, only 1·41 per cent. was marked as choicest. First quality constituted 29·24 per cent.; second, 63·02 per cent.; third, 5·62 per cent.; rejected, 0·71 per cent. Total number of crates exported —26,043.

The Dairy Research Laboratory is now well established, and is rendering important services to the industry. A system of instructional courses at the laboratory for butter factory staffs was instituted in the course of the year. The direct benefit of such an instructional service to all concerned is undoubted. A bacteriologist has been stationed at Toowoomba to conduct researches into production problems. This service will also be available to butter and cheese factories of the Darling Downs generally. The chief project of the year was a survey of the butter factories of the State, involving studies of pasteurisation efficiency, sanitation of equipment, quality of water supplies, and various methods of chemical and bacteriological control employed during manufacture. Other laboratory work included studies of defects in butter, cold storage properties of butter, milk and cream defects, and the chemical investigation of materials directly related to butter quality and butter manufacture.

The scheme under which freight rebates are granted to purchasers of animals for herd improvement has been of great assistance to farmers during the year. One regrettable result of the unusual climatic conditions in the dairying districts is plainly visible in the herd recording work of the Department. There was a substantial decline in the number of herds submitted which totalled 402—an aggregation of 14,422 cows. In the course of the year production returns 6,413 cows were computed, showing a butter-fat average of 141 lb. In comparison with last year's returns—154 lb. of butter-fat per cow—and considering the severity of the season, that rate of production may be regarded as relatively satisfactory. The average yield of milk from all records computed was 3,458 lb. per cow, as against 3,813 lb. last year. It is interesting to note that the difference in milk yield corresponds very closely to the yield of butter-fat. Some herds have produced an average of more than 250 lb. butter-fat per cow. One herd averaged 267 lb. butter-fat over the lactation period. The best individual yield was from a cow in the Oakey district which gave 9,016 lb. of milk, containing 378 lb. of butter-fat. The herd of which this cow is a member was first submitted for testing twelve years ago, and the first return indicated an average yield far below the average of other herds tested in the district. Since then the herd has been tested by the Dairy Branch every 60 days, and the records last year (1934-35) showed a return of 294 lb. butter-fat per cow. Progressive dairy farmers in all our dairying districts have added herd recording to their activities as part of the regular routine of a dairy. The active support of a number of dairy associations in this profitable dairying practice is acknowledged, and the aim is to have every factory management co-operating in this important section of dairy economics. Dairy farmers in general are realising the value of the assistance of the Department in making field officers available for herd testing. Many farmers, through the stress of climatic conditions, had to withdraw their cattle temporarily from testing, but their resumption of the practice is certain when the weather conditions improve.

The records of co-operative dairy associations have been inspected regularly—a service ensuring uniformity in accountancy, and which is much appreciated by both factory managements and shareholding suppliers.

It is gratifying to report that educational facilities provided under the Dairy Cattle Improvement Act have been extended to many new dairying centres. There are now 153 dairy committees working actively within local producers' associations. Under the provisions of this Act, a veterinary surgeon has been stationed at Brisbane, Toowoomba, Gympie, Rockhampton, and Atherton—each specialising in dairy veterinary practice.

The marketing of dairy products is dealt with in detail in my report as Director of Marketing.

ECONOMIC ENTOMOLOGY AND PLANT PATHOLOGY.

There has been no repetition, fortunately, of the plague grasshopper outbreak, which was the outstanding entomological problem of the previous year. Although the pest was present in some districts, no reports of losses of cultivated crops or of pastures were received.

Serious armyworm outbreaks were recorded in coastal and near coastal districts from the southern border to Rockhampton. Infestation extended as far inland as Pittsworth on the Darling Downs.

Grain and fodder crops and grasses were attacked, and in some localities large areas of pastures were eaten out. Fortunately, only one generation of the pest was abnormally numerous, and, as with the last outbreak in the 1931-32 season, the plague ended almost as abruptly as it began. An abundance of natural enemies was, no doubt, an effective check. The use of poison bran baits in the early stages of infestation also helped materially in controlling the outbreak—which provided an opportunity of testing other methods of control, including spraying, and results of distinct value were obtained.

Rutherglen bug infestation caused considerable anxiety by its widespread incidence in mid-spring, but little damage by the insect was reported. This outbreak was also seized on as an opportunity for control experiments, which are discussed in another section of this report.

The red-shouldered leaf beetle made its appearance in October, and infestation occurred at intervals throughout the year. It was reported at places as widely separated as Coolangatta in the South, and Tarzali on the Atherton Tableland. The distribution and sporadic occurrence of this pest adds to the difficulty of control. Flares and sprayed insecticides were used effectively in areas of intense infestation.

White grub (*Lepidiota caudata*, Blkb.) damage to paspalum pastures on the Atherton Tableland was less pronounced during the autumn and winter of this year than during the corresponding period of 1935. This comparative freedom was due to the light flight of beetles in 1934, and the grubs maturing from that flight were this year relatively few in number. The appointment of a special investigation committee to collaborate with officers of the Department, and the initiation of an extensive series of field experiments, were among the measures adopted to control this important pest.

Another species of white grub (*Pseudholophylla furfuracea*, Burm.) attacked pastures on a few dairy farms in the Childers district, and grubs belonging to a species of *Rhopœa* were recorded as infesting paspalum pastures in the Killarney district and peanut plants in the Nanango district. In all cases, appropriate action has been taken.

Corn ear worm (*Heliothis obsoleta*, F.) is still a pest of great importance in the cotton districts, and has been the subject of continued investigation during the year. The cotton web-spinner (*Loxostege affinitalis*, Led.) appeared as a pest of importance for the first time since the revival of cotton growing fifteen years ago. The abnormal abundance of this species was not confined to the cotton districts, for a serious outbreak on the common saltbush (*Atriplex muelleri*) was investigated in the Roma district. Proven control measures were applied where practicable. Rough boll worm (*Earias huegeli*, Rozenk) was a factor in the reduction of the top crop on October planted cotton. The corn ear worm dusting experiments to be carried out in the coming season should, it is hoped, give some indication that dusting may also be useful in controlling rough boll worm infestation.

Measures already in practice for the control of the pink boll worm (*Platyedra scutigera*, Holdaway) appear to be effective, for infestation last season was appreciable only in poor cotton, chiefly in diseased bolls.

Jassids (*genus Empoasca*) were abnormally abundant, and were responsible for very heavy losses of cotton, particularly in the later planted crops. This is the first general infestation reported, and it is hoped that it will constitute a problem only in somewhat restricted areas.

Banana thrips (*Scirtothrips signipennis*, Bagnall) has again been much less abundant than was the case a few years ago. The Stanthorpe district enjoyed a considerable degree of freedom from Queensland fruit-fly (*Chætodacus tryoni*, Froggatt) during the season, but losses elsewhere were severe. The main feature of the year's control work was the testing of certain repellent sprays. Tests of the new lure mentioned in my last annual report confirmed the promising results obtained in earlier experiments.

Included in the more important pathological work undertaken were seed treatment of cereals; investigation of cotton diseases, tobacco diseases and fruit diseases; and investigation of diseases of forest trees.

During the year regulatory, control, and advisory work in respect of insect pests and diseases covered an extensive field of investigation and action, of which annexed reports contain full and interesting accounts.

BEE-KEEPING.

Advisory and inspectional services were continued during the year by an officer of the Entomological Division. Many additional apiaries were inspected, and it is pleasing to report freedom from serious disease. The position of the honey market is dealt with in the report of the Honey Board which is included among the commodity board reports.

ECONOMIC BOTANY.

Although the work of the Government Botanist and his assistants is chiefly advisory, special field studies of native pastures were continued. Experimental plots have been selected in parts of the western pastoral country for the purpose of securing data on which to base future grazing policy. Mitchell grass, its habits and regeneration after periods of over-stocking and protracted dry spells, were subjects of special investigation.

A large number of specimens of plants suspected of being poisonous to stock was received and identified in the course of the year. This service is appreciated greatly by graziers and farmers. As in previous years, records of the more important plants have been included in the accompanying report of the Government Botanist as a contribution to general knowledge.

A wider recognition of the fact that most of the wealth of the State comes from grass has led to a stimulation of more intensive studies of pasture problems, in which officers of the Departmental branches concerned are specially occupied.

Success or failure in stock farming, dairying, and otherwise, is bound up largely in sound knowledge of grasses, both indigenous and introduced, and how to use them to the best advantage. There is no other group of plants so essential to human life as grasses, and, naturally, grass studies and all that they connote in respect of animal nutrition, soil conservation and husbandry generally are considered to be among the most important functions of the Department. The determination of territorial limits of occurrence or adaptation, cultural requirements and feed value of every plant embraced in our grass economy are matters of first importance to the agricultural and pastoral industries. That fact has a definite bearing on botanical research and allied activities, of which accounts are incorporated with this general review of the year's progress in agriculture.

Additional cabinets have been provided in the herbarium, and a large quantity of botanical material has been mounted and filed. Our collection is being increasingly used by workers on Australian botany, both at home and overseas.

SUGAR PRODUCTION.

Statistics of the sugar industry in Queensland issued by the Government Statistician show that in 1935 the area cultivated for sugar aggregated 314,700 acres. The acreage of cane crops crushed amounted to 228,515 acres; the quantity of cane crushed was 4,220,435 tons, from which 610,080 tons of sugar were extracted.

The year 1935 showed increases compared with 1934 in area cultivated (10,774 acres) and area crushed (10,089 acres), but production of cane decreased by 50,945 tons, and 1,081 tons less sugar were made. The record year for raw sugar production was 1933 with 638,559 tons, the figure for 1935 being 28,479 tons less than this.

The increases in area and yields in the 1931-35 period compared with twenty years earlier—1911-15—were:—Area cultivated, 109 per cent.; area crushed, 132 per cent.; cane crushed, 170 per cent.; and sugar made, 230 per cent. Improved efficiency has resulted in higher production per acre of both cane and sugar. At 1911-15 yields, it would have taken 316,245 acres to produce the 1931-35 average tonnage of sugar. This figure is 93,556 acres more than were actually cut for crushing on the average during the last five years. Comparing the two latest five-yearly periods it is found that the increases in 1931-35 on 1926-30 were:—Area cultivated, 8·4 per cent.; area crushed, 6·5 per cent.; cane crushed, 19·7 per cent.; and sugar made, 21·6 per cent.

The cane yield per acre at 18·47 tons was over a ton lower in 1935 than in the previous year, and practically two tons lower than in 1933. The sugar yield per acre (2·67 tons) was also lower, but the decline was relatively less than the decrease in cane yield, as the average quality of cane crushed was better in 1935 than in either of the two previous years. It took 6·92 tons of cane to produce a ton of sugar last year, compared with 6·99 tons in 1934, and 7·31 tons in 1933. The best average was obtained in 1930, when 6·83 tons of cane on the average produced 1 ton of sugar.

Farms growing cane last year numbered 7,538, and an average of 42 acres of cane per farm was grown.

The average price realised for the whole Queensland sugar production of 1935, including "excess" sugar, was £16 3s. 8d., which, applied to the quantity manufactured, gives a value of £9,873,000. The average price for 1934 was £15 10s. 6d., and the total value £9,504,000 for a production of 1,000 tons greater. The enhanced value in 1935 was due to a smaller proportion of the crop being exported and higher export realisation. The values quoted are at nearest mill port, and therefore include freight and other charges between mill and port.

The progress results of the many projects which are at present the subject of investigation by the several branches of the Bureau of Sugar Experiment Stations will be recorded in the Director's annual report, which will appear later in the year.

PROTECTION OF WILD LIFE.

The protection of native fauna under "*The Animals and Birds Acts*, 1921 *to* 1924," and the conservation of native flora under "*The Native Plants Protection Act of* 1930," have been continued with success, due largely to an awakening of the public conscience in these matters. Additional bird and animal sanctuaries have been established in suitable districts, in which the destruction of protected wild life is absolutely prohibited.

State-wide protection is afforded all species of native ferns, palms, and orchids. Protective measures are enforced on Crown lands, and additional honorary rangers have been appointed to co-operate with the Department in the conservation of plant life in national parks. Through co-operation between the Department and the Main Roads Commission a more effective check has been established against the destruction of our native flora.

CO-OPERATIVE ASSOCIATIONS.

Since my last report four additional co-operative associations have been registered, making a total of 203 associations and 1 federation operating under the provisions of "*The Primary Producers' Co-operative Associations Acts*, 1923 *to* 1934," since legislation came into force.

Due to amalgamations and voluntary terminations, the actual number in operation (including the 1 federation) is 188. The number of licensed auditors has increased from 173 to 191. Three exemptions from the provisions of the Acts have been granted, bringing the total exemptions to 26.

ORGANISED MARKETING.

An account of the year's operations of the several commodity pool boards is given in detail in my report as Director of Marketing, which is among the appendices hereto.

AGRICULTURAL CHEMISTRY.

There was a decline in the number of samples for analyses received by the Agricultural Chemist, the total being 7,313, as against 8,385 in the previous year. In addition, 4,857 samples of glassware (cream bottles, milk bottles, pipettes, and thermometers) were tested, as compared with 5,805 for the 1934-35 period.

Viscera samples analysed totalled 174, of which more than 28 per cent. contained arsenic—an indication that greater care is necessary in the prevention of access by stock to any form of arsenic used on the farm.

The soil analyses tables shows a further increase for the year, the number being 2,495, as compared with 2,249 in 1934-35. In addition, 2,496 soil samples were tested for moisture content in connection with investigations of the Cotton Branch, together with a number of samples from white grub infested pastures on the Atherton Tableland, and also from State forests.

There was very little difference in the number of grass and shrub samples submitted, and they were sent in mostly for the purpose of ascertaining what concentrates, supplementary foods, and stock licks were required, in addition to roughage, to maintain animal health.

A considerable number of fruit samples was also submitted for the purpose of determining standard of quality.

Among new fields of investigation were tests of the specific protein quality of certain crossbred wheats.

A special investigation into pineapple soil composition was commenced, and should lead to important results.

The sawfly investigation was continued in co-operation with the Animal Health Station, at which controlled feed experiments are in progress to ascertain whether eating of the larvæ by cattle is due to soil deficiencies. As conditions have been suitable for a heavy infestation in the localities where it has become a cattle-poisoning problem, this investigation is of more than ordinary importance. Close and cordial collaboration with all branches of the Department and public bodies requiring the services of the Agricultural Chemist was maintained throughout the year.

Complete tabulated details of the year's laboratory and field activities are attached.

SEEDS, STOCK FOODS, FERTILIZERS, PEST DESTROYERS, AND VETERINARY MEDICINES.

Details of the general work of this section of the Department during the period under review are set out in a series of tables and explanatory text in an annexed report.

SHEEP AND WOOL.

Weather conditions were generally favourable over most of the pastoral country. The North, West, and South-West had unusually heavy winter rains. Their widespread benefit was offset to some extent, however, by the resultant losses of newly-shorn sheep in drought-weakened flocks.

The parched pastures of the rolling downs country changed to a fresh-green carpet of Mitchell and other grasses—suggestive of an illimitable expanse of rippling wheat to the aviator's eye. The good season, of course, favoured a multiplication of insect pests—particularly blowflies, which caused heavy mortality among the flocks. The usual control measures had no lasting effect, but jetting proved the most successful. The blowfly problem, one of the most important in our pastoral economy, still offers an extensive field for intensive investigation.

During the season 399,818 bales of wool—as against 564,352 bales (including a carry-over of 104,000 bales from the previous season) in 1934-35—were catalogued at the eight sales held. The carry-over from the previous season was light, and wool was received in store for the last sale up to late in June on account of a short supply. Sales aggregated 386,570 bales at an average price of 14·54d. a lb. Last year's sale figures were 552,461 bales at an average of 10·38d. a lb. The total amount realised at the Brisbane wool sales was £7,058,068. To this sum must be added the value of the wool shipped direct to England, and the value of wool on skins exported, which numbered 304,492 and brought £68,150.

Firm values for fat mutton and lamb ruled throughout the year. The current quotation for store wethers is 12s. a head off shears; for young ewes values are considerably higher.

The fat lamb raising scheme inaugurated by the Department a few years ago has been developed further, and results more than justify anticipations. The scheme has been extended for the benefit of farmers with suitable country in the Upper Burnett and Dawson Valley and on the Atherton Tableland.

The scantiness of spring and summer rains over the chief fattening areas on the Darling Downs affected fat lamb sales seriously. Average prices at Cannon Hill were:—

	s.	*d.*
Dorset Horn crosses	18	10
Border Leicester crosses	18	9
Southdown crosses	17	9
Romney Marsh crosses	16	9
Lincoln crosses	15	7

The Farmers' Wool Scheme continued in operation to the advantage of small flockowners, whose wool receives the same attention as that given to the largest clips catalogued for the Brisbane sales.

ANIMAL HEALTH STATION.

A year of steady progress in routine activities is indicated in a table in the report of the Director of the Animal Station, which is annexed.

An increasing use of phosphatic licks by coastal farmers is reported.

Sporadic outbreaks of diarrhœa in horses occurred in early spring in different parts of the State, but serious losses were prevented by the prompt application of remedial measures advised by the Station.

Cultivated pleuro-pneumonia vaccine virus is now sent out by the Station instead of the natural virus hitherto supplied. With this laboratory product always on hand control of pleuro-pneumonia may be regarded as assured to a much greater extent than formerly. Hitherto the difficulty has been to obtain natural virus whenever it was required, especially in respect of travelling stock which are usually more susceptible to contagion.

Mastitis vaccine has been used extensively during the last twelve months. Further investigations into the probable causes of this serious menace to our dairy herds are in progress.

Further tests of measures for the prevention or control of contagious abortion are also in progress. Culling of infected cattle is still among the most efficacious means of control advised. Testing of dairy cattle is a free service provided by the Station. Staff reports, which are appended, indicate the extent and value of the veterinary services provided by the Station for the benefit of stockowners generally.

An extension of investigational work in respect of animal parasitology and entomology was among the chief activities of the year.

The poultry nutrition experiments referred to in my last report have been completed, and from the conclusions arrived at much useful information is now available to the industry. Poultry parasite—both internal and external—investigations are proceeding.

Farmers are realising to a greater extent the truth that it pays to protect the health of stock, and are making use to an ever increasing degree of the remedies and services provided by the Animal Health Station and Stock Branch.

Schools of instruction in the principles and practice of animal husbandry for farmers, arranged by the Council of Agriculture, were held in the course of the year. Although necessarily brief in duration, they formed a valuable part of the extension work of the Station.

Drug treatment of tick fever in cattle produced notable results.

Among the disorders of economic importance affecting domestic animals treated by the Station staff, or otherwise dealt with were:—Pyæmic hepatitis of horses; arsenical poisoning of cattle; grass tetany in cattle; ergot poisoning in cattle; plant poisoning in cattle; tick fevers in cattle; "yellows" or "yellow big-head" in sheep; plant poisoning in sheep; carbon tetrachloride poisoning in sheep; contagious pneumonia in sheep; septicaemia in pigs; parathyroid disease of pigs; posterior paralysis of pigs; filariasis in dogs; bacillary white diarrhœa in chickens; coccidiosis in poultry; and black comb disease in poultry.

A general account of this work is given in sectional summaries further on in this review.

ST. LUCIA FARM TRAINING SCHOOL.

Unfortunately, it is difficult to keep enrolment at St. Lucia up to the full strength of the establishment. The great difficulty is to overcome parental prejudice against work on the land for boys who have not found employment in other branches of industry.

In the course of the year sixty-six boys went to farms, the majority being placed under the St. Lucia scheme. Four other boys who had completed training were granted scholarships at Queensland Agricultural High School and College.

No difficulty has been experienced in placing boys on selected farms, and letters received from many of the trainees indicate that they are working under happy conditions and are receiving good treatment from their employers. The number of boys placed by the Training Farm on farms has now reached 244.

PIG RAISING.

Considerable attention was given to the possibilities of expanding our export trade in pig products in the course of the year. Improving prospects in this connection have stimulated the rapid development of the industry.

There has been a marked reduction in the incidence of disease in pigs, and an absence of highly infectious and contagious disorders.

It is estimated that there are 26,000 registered dairy farmers actively engaged in pig raising. The territorial scope of the industry extends throughout the coastal and near coastal country from Stanthorpe to Cooktown.

There has been a marked increase in the number of pigs slaughtered at bacon factories. The total was 383,207, as compared with 324,107 in 1934-35, and 250,688 in 1933-34. Of last year's total 31,263 were slaughtered for export. In addition, 3,283 bullocks, 15,074 cows, and 5,807 vealers were slaughtered at bacon factories.

The average price for bacon pigs for the year was 4·72d. a lb. There was no advance on the average price paid in the previous year.

Closer investigation into the incidence of disease in pigs in recent years has led to an appreciable reduction in slaughter-house condemnations, and in the number affected by serious disorders.

Conditions under which pigs are kept have greatly improved; and there now exists a better understanding by breeders of the classes required and of the necessity of standardising breed types.

LIVESTOCK.

The statistical position in relation to livestock in Queensland, as at 1st January last, indicates a serious decrease in all classes, due to climatic adversity in previous years in many of the chief pastoral districts. It takes time to replace losses of breeding stock, and still longer for their progeny to arrive at maturity. Wool and meat production depends in the long run on the feed available. Since January the pastoral position has greatly improved as the result of soaking and widely-distributed rains. The numbers of station and farm stock on 1st January, 1936 (1935 figures are in parentheses), were:—Horses, 430,399 (448,604); cattle, 5,974,299 (6,052,641); sheep, 17,806,188 (20,574,182).

A comprehensive scheme for providing water on our main western stock routes has been devised and the necessary works are now in hand. This scheme, when completed, will not only be of benefit to ordinary travelling stock, but will also be the means of keeping routes open when in dry seasons it becomes necessary to transfer stock to relief country.

The demand for stud stock strengthened remarkably during the year as part of a general movement towards herd improvement, and consequently an improvement in the quality of meat exports. The development of the chilled meat trade, and the prospects of further expansion have added momentum to this progressive policy.

A beef cattle improvement scheme was also initiated by the Department in the course of the year.

A strong demand for well-bred horses of every class is reported from every stock marketing centre.

Horses exported oversea numbered 2,238, as against 2,337 in the previous year.

There was a marked increase in pig slaughterings during the year. Killings totalled 383,207—an increase of 59,100 over the 1934-35 total and 132,519 more than that of 1933-34.

A recent survey of cattle on holdings in the Gulf country, which were menaced some years ago by a serious infestation of buffalo fly, show that the insect has not spread to any appreciable extent. Three holdings only were found to be fly-infested, and that very lightly.

It is pleasing to report a comparative freedom from serious animal diseases throughout the pastoral areas.

Metropolitan fat stock yardings at Cannon Hill included 135,641 beef cattle, 46,518 vealers, 406,790 sheep, 48,135 lambs, and 42,292 pigs.

The number of stock of all classes sold up to 30th June, 1936, was 679,376, as compared with 820,850 in the previous year.

Average values were:—

- Cattle—
  - Chillers, per cental—27s. 3·35d.
  - Bullocks, per cental—23s. 9·06d.
  - Cows and heifers, per cental—21s. 6·52d.
  - Vealers, per lb.—5·23d.
- Sheep—
  - Wethers, per lb.—3·88d.
  - Ewes, per lb.—3·47d.
  - Lambs, per lb.—6·21d.
- Pigs—
  - Porkers and baconers, per lb.—5·23d.

Metropolitan killings (Brisbane Abattoir), not including stock slaughtered for export, were (previous year's figures shown in parentheses):—Bullocks, 46,034 (53,617); cows, 39,348 (39,220); calves, 68,435 (52,187); sheep and lambs, 328,892 (406,499); pigs, 32,312 (30,305).

Abattoir condemnations, which were comparatively light, are tabulated herein.

Bacon factory slaughterings were:—Pigs, 383,207 (324,107). Condemnations, heads, 29,580 (24,869); carcasses, 3,791 (3,354). Cattle: bullocks, 3,283; cows, 15,074; calves, 5,807.

Stock slaughtered in country centres under police supervision:—Bullocks, 32,590; cows, 42,780; calves, 3,586; sheep, 56,699; pigs, 13.990.

LIBRARY.

A good library is regarded as indispensable to the Department. To enable technical officers and research workers to keep in touch with the latest developments in agricultural science and practice, the central library is continually expanding.

Reorganisation was completed in the course of the year. Special steel shelving was provided, and the books and other publications, which have been classified under a decimal system, are now arranged in such a way as to render them readily available. The number of regular readers is increasing, and the library is regarded as a valuable source of information by officers of the Department and associated services, as well as the agricultural and veterinary students of the Queensland University. The library is also available to members of the general public desiring to use it for purposes of reference and research.

The number of requests for library information and exchange publications is increasing steadily, and is attributable to the practice of distributing complete monthly accession lists. This gives everyone concerned an opportunity of knowing the new publications available and keeping himself informed on the latest developments in agriculture and related land industries.

The valuable exchange service, through which publications on agricultural and kindred subjects are received regularly from many countries, was extended during the year.

The sectional libraries of the Department have also been well maintained by the several branches.

PUBLICITY BRANCH.

If the full benefit derived from the laboratory and field work of the Department is to be realised, the results of that work must be conveyed to the farmer in a readable and readily assimilable form. The chief medium of departmental publicity is the *Queensland Agricultural Journal*, which is now entering its fortieth year of publication. Although by the very nature of some of the research activities of the Department it is difficult to avoid the use of technical phraseology in published results, the general aim is to present accounts of work done and advisory information in plain, simple, and direct language.

During the year the Journal was improved considerably from a technical point of view, and a steadily advancing circulation may be regarded as evidence of farmers' appreciation of the service it supplies. It fulfils a definite need, and its usefulness is assured by regular contributions—many containing the results of original research—from officers of the scientific and technical staffs. With a nominal subscription of one shilling a year (to cover postage) there is still, however, a very wide scope for increasing the number of subscribers.

A large number of bulletins and advisory leaflets, including numerous extracts from the Journal covering a very broad field of scientific and seasonal information, was distributed in the course of the year.

The system of regular broadcast talks to farmers on subjects of seasonal and general interest, instituted some years ago, has been continued weekly throughout the year through the courtesy of the Australian Broadcasting Commission. Over 100 radio lecturettes were delivered in the course of the year by officers of the Department. This service is appreciated by a big farmer audience, judging by the large correspondence it evokes. On occasions, Departmental lecturers have been chosen to broadcast throughout the Commonwealth over the national radio network.

Departmental announcements of an urgent nature have been communicated direct to the metropolitan and country Press, to which seasonal articles have also been supplied regularly.

Arrangements have been made for the issue of a weekly news bulletin to the Press throughout the State. An average of eight special notes in each issue is planned, so that over 400 authoritative articles on topical and seasonal interest and importance will be made available in the course of the coming year. It is anticipated that the establishment of this regular service of authoritative information will prove of definite benefit to the primary industries. Through the continued co-operation of the Press, hereby acknowledged, thousands of farmers will thus be supplied every week with authoritative agricultural news.

The photographic services of the Department included the distribution of suitable prints and process blocks of rural subjects and scenic interest to numerous Australian and overseas publications. Sets of lantern slides have also been made available as a direct contribution to various lecture services. Motion pictures of various aspects of country life and industry have also been made available, from time to time, for public screening. In co-operation with the Department of Public Instruction, material assistance has been given to the extension of farm project work in the primary schools, as a means of stimulating the interest of youth in rural industries. In addition, numerous addresses on departmental activities and rural economy have been delivered in the course of the year.

GENERAL.

This survey, necessarily condensed, of the activities, aims, and achievements of the Department during the past year is by no means complete. It has only been possible to deal with matters of outstanding importance, and record facts and tendencies.

There is scarcely any phase of farming to which departmental influence does not extend, to the advantage of the man on the land. While the Department continues perseveringly in its enormous task, success would be unattainable without the goodwill and co-operation of the farmers themselves. On them devolves the practical side of the business, the application of preventive, corrective, or ameliorative measures evolved or recommended by the Department, and the necessity of close collaboration with administrative, scientific, and technical staffs. Obviously, in dealing with the problems of primary industry little could be done without the farmers' cheerful and practical co-operation.

Another important chapter in the history of agriculture in Queensland was opened by the initiation in January last of a scheme of co-ordinated scientific research. Professor E. J. Goddard, B.A., D.Sc., Dean of the Faculty of Agriculture and Professor of Biology in the University of Queensland, was appointed Science Co-ordinating Officer temporarily to assist in implementing the scheme. The basis on which the scheme will be evolved is discussed in Professor Goddard's preliminary report, which is annexed. The general principle is a recognition of the fact that conditions in agriculture influence largely the level of prosperity in industries dependent on it. Consideration is being given to several of the major problems with which primary industry in Queensland is faced to-day. Among them is the problem of soil erosion, a matter of vital importance to both farmers and graziers. To loss of soil must also be added deterioration of pastures, and denudation of catchment areas, as parts of the general problem.

Overstocking and wrong pasture management—in some cases an entire lack of management—are taking toll of our valuable indigenous grasses, herbage, edible shrubs, and trees. This fact emphasises the necessity of the maintenance of a balance between carrying capacity and number of stock depastured on grazing areas, and of which the favourable season should not be the sole criterion. Cognisance of these matters is essential in any system of scientific research, and the Department will, it is believed, achieve practical results through the co-ordination of its services which implies an essential liaison with other bodies working towards the solution of pressing national problems. There are, obviously, certain fundamental facts and principles involved which can only be considered fully under a system of co-ordinated research. In fact, all departmental activities—field work, control of plant and animal diseases, regulatory administration and general agricultural economy—are but an expression of scientific research.

During the year close attention was given to pasture improvement based largely on fundamental research involving two important purposes—the testing of indigenous and introduced grasses and demonstrating practically the best methods of treatment and propagation. Other matters dealt with in this connection included proper subdivision of grazing areas, systematic grazing and the prevention of overstocking, and, incidentally, adequate and protected water supplies.

It is pleasing to report that farmers have evinced a keen interest in all these and related projects.

Within the realm of agricultural economics much was accomplished by the Department in the course of the year. Organised marketing has occupied a prominent place amongst its many activities, especially since the inception of the Marketing Branch. By a diversity of methods, legislative and otherwise, it has endeavoured to ensure that the producer receives the best possible price for his products. Fundamentally, however, the improvement of the marketing system rests with the primary producers themselves. The Department may devise enabling machinery and give the necessary direction, but it is really a matter for the farmers themselves, acting collectively, through their local producers' organisations, to work out their own economic salvation.

It is easier to talk of new and better markets than to capture or establish them. Further effort must be made to improve the quality of our export products so that, whatever competition we may have to encounter on oversea markets, we shall at least hold our own on point of intrinsic quality.

The marketing side of the agricultural industry is still beset with problems both vast and intricate, and any shortcomings in our export trade must be eliminated by the closest co-operation of all concerned.

In the course of the year, a system of periodical staff talks, under the presidency of the Honourable the Minister, was inaugurated. As a means of interchanging ideas, co-ordinating services, and stimulating thought and action, the regular assembly of heads of branches has been productive of much benefit in departmental administration, and has been entirely successful generally.

The Government Statistician's annual compilation of agricultural production and livestock statistics is appended.

Accounts of the general activities of the Department are contained in the reports of the Director of Agriculture, the Chief Inspector of Stock, the Director of the Animal Health Station, the Director of Dairying, the Director of Cotton Culture, the Director of Tropical Agriculture, the Director of Fruit Culture, the Science Co-ordinating Officer, the Chief Entomologist and Director of Research, the Government Botanist, the Agricultural Chemist, the Officer in Charge of the Seeds, Fertilizers, Stock Foods, Pest Destroyers, and Veterinary Medicines Investigation Branch, and the Director of Marketing—all of which are incorporated herein.

E. Graham

UNDER SECRETARY AND DIRECTOR OF MARKETING.

REPORT OF THE SCIENCE CO-ORDINATING OFFICER.

The increasing importance of science in its relation to agricultural and pastoral problems is to-day universally recognised, and everywhere organisation of scientific effort is being directed towards more and more efficient attack on those problems along scientific and fundamental lines. In all civilised countries the necessity for modernisation of investigational effort has been, or is being, realised, and at the same time utilisation of the advantages accruing from the pooling of scientific knowledge in its relation to the problems of primary production is being effected.

Acceptance of this outlook led in Australia to the creation of the Commonwealth Council for Scientific and Industrial Research, which has organised and undertaken researches of a fundamental order bearing on big problems which, generally speaking, concern several States in common and which, therefore, may be regarded as having a directly national importance. In addition it was fitting that such a Commonwealth body should undertake researches into problems of a long-distance order—that is, problems such as the biological control of certain types of noxious weeds which might be expected to involve many years of laborious effort, extra-Australian activities and co-operation with other countries. Then, again, many problems associated with pastoral interests and having much importance for Australia reasonably fell within the ambit of the activities of the Commonwealth organisation.

In every way the various States of the Commonwealth have co-operated with the Council for Scientific and Industrial Research, and in that connection Queensland has been particularly noteworthy. It is perfectly clear, however, that geographical considerations, financial requirements, localisation, and specificity of problems, as well as the need for the closest and most efficient association between research and investigational work on the one hand and experimental, extension, and advisory work on the other hand, place a limitation on the activities of the Council for Scientific and Industrial Research. Recognition of this limitation leads to the conclusion that the individual States must participate in research activities and also accept full responsibility for all experimental, extension, and advisory work within their domains. In the circumstances, it becomes necessary in view of the manifold problems that become our responsibility that serious attention should be directed towards organising our methods and personnel for attack on our problems and towards eliminating overlapping of activities and ensuring that efficient and economical service go hand in hand. This involves organisation of the scientific and technical staff of the State Department of Agriculture and Stock, co-ordination of activities directly or indirectly relating to primary production discharged by the various Departments of the State and institutions such as the State Agricultural College and the University of Queensland, and co-operation with the activities of the Council for Scientific and Industrial Research and the other States of the Commonwealth.

Such considerations as set out above and appreciation of the outstanding importance and magnitude of the scientific problems relating to the agricultural and pastoral industries in Queensland suggested to the Minister the need for a reorganisation and development of the scientific and technical activities within the Department of Agriculture and Stock. The elaboration of such a scheme of reorganisation was undertaken in January, 1936, by the temporary appointment of a Science Co-ordinating Officer familiar with the activities of the Department of Agriculture and Stock, State Agricultural College, University, and the Council for Scientific and Industrial Research.

The undertaking is one of immense order, demanding strong, continuous, and patient effort, inasmuch as it involves a review and assessment of Queensland's problems on the basis of State production and maintenance of rural settlement, organisation of attack (in respect of method and personnel) on those problems, and the application of new and old knowledge to the fields of experimentation and practice.

Much good work stands to the credit of the various branches of the Department, but it is recognised that research activities have not received in the past the attention that many important problems now demand. It is hoped that a scheme of reorganisation will be evolved whereby the desires in that direction will be implemented, without disturbing the activities of the existing branches. The evolution and gradual adaptation of a practical scheme should ensure efficient co-ordination or research, experimental, extension, and advisory activities and materially advance the interests of Queensland.

A survey of the activities carried out within the Department of Agriculture and Stock and the relation of the existing staff to those activities is being carried out. At the same time careful attention is being given to the work done in relation to the problems of primary production by other Government Departments and by institutions such as the Queensland Agricultural High School and College, the University of Queensland, the Queensland Meat Industry Board, the Commonwealth Council for Scientific and Industrial Research, the various Departments of other States, and by private concerns, so as to avoid overlapping of effort and ensure economical and co-operative service in the interests of the State.

It would be premature to forecast at this stage any plan of reorganisation. Yet certain developments dictated by the immediate needs of the State have been inaugurated, and these must inevitably find a place of importance in any scheme of reorganisation. Among such may be specially mentioned the experiments at present being carried out on the northern tropical coastal areas in connection with fattening of beef cattle, organised investigation of inland pastures, coastal pasture investigations in the southern areas, and soil erosion.

A Division of Animal Industry is now being organised in relation to the problems of disease and nutrition. In this connection the services of Professor H. R. Seddon, Dean of the Faculty of Veterinary Science at the University of Queensland, are being utilised. It is essential that this State should immediately undertake research work on an intensive and scientific basis into a number of problems of fundamental importance to the animal industry. With this decision in view, it is recognised that attention should be given towards meeting the problem of supply of men capable of undertaking research. Very considerable difficulty has been experienced in recent years in obtaining veterinary graduates of high standing from the South. The Government has met this difficulty by making possible the inauguration of a Faculty of Veterinary Science at the University of Queensland. This Faculty should play a big part in developing a Division of Animal Industry by training men for research and allied activities within that Division, as well as by researches carried out within the Faculty itself. A very close liaison has been established in this connection between the University and the Department of Agriculture and Stock. During 1936 two cadets from this Department have been enrolled as students within the Faculty. On graduation they will be available for pig and poultry investigations respectively.

Arrangements have been completed for the transfer of control of the Townsville Research Station from the Council for Scientific and Industrial Research to the Department of Agriculture and Stock as from September of this year. This station will function as a centre for research and extension work and, *inter alia,* will play an important part in connection with the experimental and nutritional work. One of its first responsibilities is being associated with the very important experiments now proceeding in the tropical coastal region in relation to fattening of beef cattle. This development is in keeping with the policy of the Department in effecting a scheme of partial decentralisation of activities to serve the best needs of the State. The coastal experiments referred to above have a most important bearing on the development of our beef industry, and the immediate need for an intensive programme of scientific research in that direction is fully appreciated by the Minister and the Department.

The Animal Health Station at Yeerongpilly will function as a centre for research and routine work, and will operate in the closest liaison with the Townsville Station. The scientific staff at Yeerongpilly is being materially strengthened by the association of highly trained scientific officers with its activities.

It may be claimed that now Queensland is organising its efforts to meet its animal problems on a comprehensive scientific basis, and this development should stimulate the interest of those engaged in the pastoral industry. There are no problems of greater importance to our animal industries than those of nutrition. A scheme of co-ordination has been developed that will ensure the closest liaison between the work of the Division of Animal Industry and the activities associated with pasture investigations and the Tropical Research Station.

The work of the laboratory will now be linked effectively with problems in the field and the research, experimental, and advisory interests mutually associated. With the increasing availability of scientifically-trained men, familiar with the nature of those Queensland problems which have a marked specificity for this State, and adopting the view that nutrition and scientific methods of animal husbandry must merit more and more scientific attention in the sphere of research and in the field of application, the outlook towards the efficient development of the beef, sheep, wool, dairying, pig, and poultry industries in Queensland becomes much brighter. The present organisation as it develops along decentralised lines ensuring efficient investigation and scientific practical advice throughout this huge State (with its varying climatic, soil, and pasture conditions), working in co-operation with the Council for Scientific and Industrial Research, the Queensland Meat Industry Board, and the University should instil confidence in all those producers associated with the Animal industries.

The best utilisation of our land in relation to animal products is a matter of deep concern to Queensland. We have problems that do not confront other States within the Commonwealth. Important experiments now in hand bearing on the utilisation of our tropical coastal lands in connection with the beef industry—experiments that are of very great importance at this stage of that industry—have incidence also on the problem of utilisation of the coastal lands themselves. The next few years are pregnant with responsibilities in relation to certain of our animal industries from several aspects, and among the latter, quality and economics of production are significant.

The developments within Queensland in connection with the investigation of animal problems as set out above have received appreciative comments from the Southern States and from the veterinary world. As our activities progress the co-operation, in every way, of those engaged in animal industries will be essential, as only in that way can the application of scientifically established procedure replace—as it must at this stage—conventional and empirical methods. There is every evidence at the present day that those who think in terms of progress and development within the animal industries are appreciative of this need. In the scheme now being organised the Department proposes to utilise all suitable services available in the direction of such co-operation.

The organisation of research and extension activities in relation to plant industry is now under consideration, but meanwhile researches bearing on pasture problems are receiving serious attention. Pastures constitute our most important crop. The problems associated therewith fall into three main classes—namely, those inland, southern coastal, and tropical coastal pastures. Inland pastures are being investigated by Departmental officers and also a full-time research officer associated with the University. As a result of co-operative effort and the completion of a complete, though general, survey of the inland parts of the State, it is hoped that a pasture map of Queensland based on ecological data will be available before the end of the present year. This map will form the basis for detailed investigations bearing on seasonal changes in pastures, pasture successions, local and secular variations in composition, and nutritional content of pastures, propagation of pastures, &c.

The pastures of the southern coastal area are being investigated and considerable experimentation carried through by officers of the Department working in association with a special committee appointed by the Minister.

The plan of attack on the northern or tropical coastal area is being orientated in close liaison with the cattle-fattening experiment and utilising the facilities of the Tropical Agricultural Research Station. In this connection every effort is being directed towards ensuring that all aspects of the pasture problems bearing on the present fattening experiment and having any possible relation to future experiments are thoroughly and scientifically investigated. The importance of this work to the future of the beef industry has been stressed earlier in this report.

The Department realises the fundamental significance of a knowledge of our pastures—coastal and inland—and in considering the importance of such knowledge based on ordered and scientific data in relation to the animal industry gives to the problems of pastures an outstandingly major status within the activities of a projected Division of Plant Industry.

This year the Commonwealth Council for Scientific and Industrial Research has inaugurated an investigation in the direction of pasture plants improvement, and in that connection the Department of Agriculture and Stock is co-operating to the fullest extent possible. The same co-operative spirit is operating in relation to Commonwealth pasture investigations in the St. George and Rockhampton areas.

Soil erosion has become a problem of national status in all countries of the world and has led to the inauguration of soil conservation services. When it is realised that our soils are the product of a series of changes that have proceeded over an immeasurable period of time, the loss of soil through the various agencies of erosion becomes a matter of very great moment.

Throughout the Commonwealth of Australia millions of tons of soil are being lost annually and great areas of land are being depleted of their plant-sustaining content. This is the result of unrestrained erosion by wind and water. These inorganic agencies are allowed to operate through the careless, haphazard methods of land use.

In the more arid parts of the continent the main agent is wind, which results in soil-drift. The north-eastern part of South Australia, north-western Victoria, western New South Wales, and the extreme portion of south-western Queensland are affected areas. This particular problem has recently engaged the attention of the Commonwealth Council for Scientific and Industrial Research. An officer of that organisation has completed a survey of the north-eastern part of South Australia and published his views thereon in a report recently issued by the Council for Scientific and Industrial Research. At the instigation of the Minister for Agriculture and Stock this officer was made available to carry out a survey of the problem in south-western Queensland, and in that project the Government of Queensland and the University of Queensland have co-operated by providing all facilities in respect of transport and making available technical assistants. That survey has now been completed and a report is awaited.

Among the factors operating in this destructive work which must result, if left uncontrolled, in the conversion of more and more of our pastoral areas into desert, the greatest is *overstocking*. The action of wind is rendered destructive over areas of depreciated pastures, and consequently the first line of defence is bound up with pasture improvement and pasture management.

The problem must be tackled in such a way as gives consideration to the matters of prevention, control, and restoration. It may well be that restoration offers little hope in certain areas, but this aspect cannot be neglected despite the extent and intensity of depreciation of pastures. This is a matter for research and the co-operation of States and Commonwealth.

The Minister for Agriculture and Stock (Queensland) has made definite suggestions in this direction to the Council for Scientific and Industrial Research in the form of a proposal to assist towards sending officers abroad to investigate the possibilities of securing plants which might be used in the work of restoration (and conservation) of pastoral areas. The matters of prevention and control are more immediate. The utilisation of windbreaks in the form of belts of trees planted or conserved is another mode of attack. These are partial recommendations of an expedient order, but it is clear that the problem must be tackled in the way that other countries have found necessary, and that is by constituting a definite organisation supported by the means for a thorough and practical investigation.

In the parts of the country exposed to heavier rainfall the agent responsible for land degradation is water. Water erosion has many facies. Water erosion is doing very serious damage to farming and grazing lands. The position is becoming more serious each year, and since the effects of water erosion are progressive, the more and more difficult and expensive must the problem of restoration become. In our steeply sloping banana lands, for example, the rich soil cover is being washed away at a terrific rate and hillsides quickly bared to clay. Gully erosion is proceeding uncontrolled. Many farmers on our North Coast are awake to the evil effects of gully erosion, and the Minister for Agriculture and Stock has now appointed a committee to investigate the problems of water erosion generally.

Much has been done experimentally in New South Wales and good recoveries have been made, but the whole matter of water erosion remains still a big and difficult problem.

The difficulties are varied and local and their overcoming demands organisation and planning.

Good farming demands that the soil and surface mulch must be worked, but at the same time attention must be given to local dangers accruing from the nature of the soil, the gradient, and the climatic conditions, and the agriculturist interested in cultivating the soil must become equally interested in conserving the soil. Even the procedure of fallowing, so closely associated with, say, wheat production, may materially assist both wind and water erosion. Here the question arises as to whether more attention should not be given to suitable crop rotation and to cover crops.

In America it is recognised that many millions of acres must be restored to grass or trees if the onset of erosion is to be stayed. Where water erosion has led to gullying, attention must be given to prevention of extension, and this in many cases may be overcome by combined efforts in the direction of contour drains, grassing of sides, &c. Consciousness must be awakened to the necessity for such preventive methods. Much can be achieved in the direction of gully reclamaton by ploughing-in, by seeding, by trees, by dams, and other mechanical means as determined by the nature and locus of the gullying.

Effective measures of control of erosion and prevention of erosion bear very directly on the future of land settlement.

The matter of wind erosion affecting the pastoral areas in South Australia, Victoria, New South Wales, and Queensland necessitates the closest co-operation of the Commonwealth and those States. That problem is directly one of a national character.

The matter of water erosion is one that appears to be definitely of State interest and can be most effectively dealt with by the individual States. New South Wales is accomplishing much. The problems are so varied and localised that only a State organisation can operate efficiently. The policy of the committee appointed by the Minister is to devise means of a preventive, control, and restorative order.

E. J. GODDARD,
Science Co-ordinating Officer.

REPORT OF THE DIRECTOR OF AGRICULTURE.

SEASONAL CONDITIONS—SOUTHERN DIVISION.

The southern coast and Darling Downs areas received good rains during the first week of July, but did not benefit to the same extent as the western pastoral lands, where falls ranged up to 7 inches. However, the prospects for wheat, fodder crops, and winter grasses were considerably enhanced, and potato crops on the coastal side of the range were planted under good conditions. August fully maintained its reputation as being one of the driest months, only light showers being received, which were of little benefit to growing crops. Severe frosts and westerly winds had a serious effect on young wheat crops, as the reserves of subsoil moisture were then very low. Many forward crops were fed off as a precautionary measure.

The excellent rains received from the 9th to the 12th September throughout the southern agricultural and pastoral areas brought about a complete change. In the Maranoa and South-West the falls were particularly heavy, providing the best spring experienced for many years. The over-average September rains were followed by heavier storms during October.

Some damage by hail was experienced in fruit, vegetable, and wheat lands, but, apart from individual losses, the benefits derived more than compensated for the damage incurred, as was reflected by the healthy condition of all summer crops.

Dry conditions again intervened during November, as only light storms were experienced early in the month, to be followed by hot, dry westerly winds, drying out the pastures and growing crops. Some grass fires occurred on the Darling Downs, but, fortunately, the damage did not extend to the fast-ripening wheat crops. Welcome relief rains fell from 4th to 7th December, being of considerable value to the dairymen, many of whom had been obliged to revert to hand-feeding. Scattered storms subsequently received assisted to revive pastures, but were too late to be of benefit to early-sown maize, the greater portion of which was utilised for fodder purposes. It can be stated that the year 1935 was definitely unfavourable for both farmer and grazier, the effect of the generally under-average rains being accentuated by the alternating wet and dry periods.

The new year commenced under favourable circumstances, January rains completely altering the outlook, enabling farmers to proceed with the preparation of land for autumn-sown crops under ideal conditions. However, during February only light falls were received, registrations being under average throughout. March was a favourable month, particularly in the Maranoa, while most districts received a thorough soaking, assuring a good growth of pasture for the early winter months. Warwick, Cambooya, and the Western Downs did not benefit to the same extent. Only light showers were received during April, by which time the Southern Downs and South-West were again assuming a droughty appearance. Owing to drying winds and the lack of moisture as crops were approaching maturity, the main summer crops only produced light yields. The unfavourable seasonal conditions continued during May, as, apart from the immediate North Coast, only light falls were experienced. The dry spell was severely felt on the Darling Downs, where many stockowners were obliged to seek agistment for their flocks and herds. Reserves of fodder are at a low ebb, as large quantities of hay, chiefly lucerne, were railed to central and western districts during the drought of 1935. West of Dalby, however, conditions were more favourable.

Wheat farmers were heartened by the June rains, as the Downs received sufficient to enable a general sowing. Although somewhat late in the season, the rains will enable sowing to be completed earlier than was the case during 1935. However, the season has been distinctly unfavourable for the early establishment of winter fodder crops and grasses.

SEASONAL CONDITIONS—CENTRAL AND NORTHERN DIVISIONS.

Unusually heavy winter rains were experienced during July throughout the central coast and western areas. Subsequent falls were light during August, October, and November, but September provided fair rains. From December to March the registration was considerably over average, the flood rains of January definitely breaking up the prolonged drought in the pastoral areas. Although the irregularity of the rainfall did not favour successful crop production, the pasture lands were considerably benefited and provided ample grazing. Somewhat similar conditions prevailed in the northern areas, the season being distinctly unfavourable during the first six months. Late December and January rains brought about a welcome change, to be followed by the flood rains of February, Mackay registering 28 inches during this month, the heaviest recorded since 1898. Naturally, the flood rains created waterlogged conditions, which had a retarding influence on plant growth.

In the Townsville district the July to December period yielded only 180 points of rain, while the January to June registration totalled 5,795 points. During the drought a shortage of feed and water became a serious problem, particularly in the coastal areas, where hand-feeding was resorted to. However, as a result of the abundant rains received from January to April, the district has experienced an excellent season.

The seasonal fluctuations briefly outlined point to the necessity of fodder conservation every year on every holding as a regular feature of farm routine.

RAINFALL TABLE.

CHIEF TOBACCO AND GENERAL AGRICULTURAL DISTRICTS FOR THE TWELVE MONTHS ENDED 30TH JUNE, 1936.

District.	July.	August.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March.	April.	May.	June.	Total.
Atherton	34	176	..	175	125	121	835	1,518	1,036	455	347	396	5,218
Beaudesert	130	50	458	499	119	559	624	157	367	26	179	191	3,359
Beenleigh	269	309	288	682	53	288	499	261	764	39	325	241	4,018
Biloela	351	180	241	241	19	196	666	444	595	4	130	261	3,328
Boonah	134	20	399	735	24	467	393	55	342	46	114	176	2,905
Bowen	34	5	68	5	37	37	815	1,667	2,616	26	38	566	5,914
Bundaberg	537	59	249	140	15	932	477	127	845	93	291	523	4,288
Charters Towers ..	175	..	47	153	4	134	239	766	733	170	38	523	2,982
Clifton	89	73	294	383	33	452	376	51	191	62	22	148	2,174
Dalby	152	94	306	172	58	501	325	61	404	13	49	156	2,291
Emu Vale	166	46	280	217	26	240	447	28	170	42	56	127	1,845
Gayndah	221	83	201	220	5	619	578	87	249	25	191	307	2,786
Gympie	282	173	410	334	18	657	674	200	783	114	171	365	4,181
Inglewood	132	57	300	170	48	252	179	58	396	8	127	94	1,821
Kenilworth	397	275	450	446	30	628	707	264	1,159	136	209	423	5,124
Kingaroy	129	52	323	270	26	449	489	163	353	12	67	149	2,482
Laidley	189	44	267	413	23	548	399	188	260	16	94	150	2,591
Mackay	146	100	270	253	81	148	878	2,799	3,153	65	409	992	9,294
Mareeba	5	3	1	22	82	49	564	1,219	1,259	116	16	374	3,710
Miriam Vale	1,012	131	332	164	26	568	926	258	608	71	286	430	4,812
Pittsworth	138	82	263	447	19	235	404	83	185	21	107	185	2,169
Ravenswood	145	..	32	58	..	15	487	775	903	133	..	709	3,257
Rockhampton	428	52	142	74	7	585	598	469	510	20	106	467	3,458
Roma	192	59	284	272	56	208	218	172	705	2	26	129	2,323
Texas	164	68	330	129	51	56	296	11	327	63	122	91	1,708
Toogoolawah	199	79	355	470	55	379	599	71	309	19	128	235	2,898
Toowoomba	201	95	336	389	39	266	424	147	368	68	43	164	2,540
Townsville	59	..	3	19	37	50	766	2,870	944	216	54	490	5,508
Warwick	160	62	319	291	17	355	444	91	192	47	71	168	2,217

WHEAT.

March, April, and May of 1935 were under average rainfall months on the Downs, with the exception of districts such as Oakey, Jondaryan, and Toowoomba, resulting in some difficulty in the preparation of land for sowing. Some few areas that germinated successfully in May and early June benefited by the light rains around 8th June. However, there was insufficient moisture to assure a normal sowing, so that by the time the weather broke on 30th June a large area had been sown dry. The general rain throughout the wheat areas on 30th June and 1st July completely altered the position and enabled farmers to complete sowing under good conditions. By August westerly winds had dried out the land considerably and rain was urgently required by the wilting crops. Falls of from 30 to 50 points were received on 10th August, but, apart from this, very little beneficial rain was received until the heavier registrations of the 9th to 12th September, which, although of great benefit to late-sown crops, were generally too late to assure an average yield. Furthermore, the shortage of feed had necessitated the feeding-off of a considerable area. Owing to the continuance of hot, dry conditions, ripening was accelerated, and harvesting was in full swing by 11th November. The Western Downs fared better than the main area lying further east, and, owing to the increased area placed under crop in the Dalby district, production in that centre was probably a record.

Harvesting was completed under favourable conditions, resulting in a high-quality product, only a very small proportion being classified as feed. As a result of the seasonal conditions briefly described, the total yield is estimated at 2,696,786 bushels, which is considerably below the average of 3,345,000 bushels for the ten-year period, 1926-36.

Florence was again the most popular variety grown, followed by Three Seas, Flora, Pusa, Gluyas, and Cedric. Once again those farmers who practised early fallowing and conservation of subsoil moisture as advocated by officers of this Department were rewarded by increased returns over those received as a result of late cultivation.

Wheat-breeding plots were established at Allora, and also at the Roma State Farm reservation, while observation plots were conducted at Rosehill, Kincora, Bonjeen, and Kingsthorpe, all on privately-owned land, made available by interested wheatgrowers. A randomised variety trial was also conducted at Allora, five replications of thirty important varieties being tested together with promising crossbreds. Further particulars of the experimental work will be found in the attached report by Mr. R. E. Soutter, Agricultural Research Officer.

Barley.

The adverse seasonal conditions affected this crop to a greater extent than wheat, the estimated yield of 58,601 bushels being less than half that of the preceding year, necessitating the importation of malting barley from other States to supplement supplies.

Variety observation trials were conducted at four centres on the Darling Downs, the chief plot being located at Mr. W. Franke's, Nobby. The six heaviest-yelding varieties were Sentinel, Vaughan, Cape, Golden Archer, Messenger, and Spratt's Archer.

Canary Seed.

This crop was sown somewhat late in the season, and therefore received considerable benefit from the September and October rains. The estimated harvest of 1,200 tons approximates closely to the yield obtained during the previous season.

Maize.

The value of this grain for stock-feeding purposes is being increasingly recognised by pastoralists, large stocks having been railed to the western districts during the drought of 1935. Although an increased area was sown to maize during the period under review, only light yields were recorded in Southern Queensland, few crops producing more than 30 bushels per acre—a fact reflected in the increased prices now being realised. Seasonal conditions were much more favourable on the Atherton Tableland, where the crop is estimated at 23,000 tons. The bulk of this latter production is normally shipped to southern markets. Maize is also valued as a green fodder and silage crop, so that during adverse seasons it can be profitably utilised as a supplement to the natural pastures. Propagation plots designed to supply pure seed of selected varieties were established at Kilcoy, Imbil, Rose Hill, Allora, Muldu, Moggill, and St. Lucia, the varieties being Improved Yellow Dent, Reid's Yellow Dent, Star Leaming, Funk's 90-day, and Golden Beauty. Good results were obtained at Imbil, in the Mary Valley, but elsewhere seasonal conditions did not favour high production.

Potatoes.

This crop is grown throughout the coastal and near coastal farming areas, but it is the Lockyer Valley, Boonah, Kingaroy, Toowoomba, and Warwick districts that cater for State and occasionally interstate trade, growers in other districts being chiefly concerned with household and local requirements.

The crop under review was below average, chiefly owing to dry conditions, and in certain districts to the unfavourable distribution of the rainfall, while a heavy infestation by the potato tuber moth was responsible for considerable damage, inducing early digging and marketing, in order to minimise further losses. Some growers reported losing four-fifths of the crop as a result of moth attack, indicating the severity of the infestation.

Farmers in the Central and Northern Divisions are now supplying a proportion of local potato requirements. In the Townsville district, including Charters Towers, Ayr, and Ingham, approximately 250 acres have been placed under crop, planting taking place during April and May, with August and September harvest.

On the Darling Downs the spring crop gave the best results, particularly where planted on scrub soils, but main summer plantings failed, very few areas yielding up to 2 tons per acre. Comparative fertilizer and variety trials were established at Swanfels and Glencoe, while the trial and propogation of imported varieties was continued at Oxenford, on the South Coast.

Peanuts.

Approximately 14,000 acres were sown to peanuts, being a considerable increase on the previous year, when a record crop was harvested. The early-sown areas made rapid progress, and withstood the dry conditions prevailing prior to December remarkably well. Some growers did not plant until January, thereby risking possible damage from early frosts. However, the estimated production of 5,300 tons indicates that a very successful season has been experienced. The favourable soil and climatic conditions of the South Burnett, coupled with the activities of the Peanut Pool Board, have established the industry on a sound basis, to the satisfaction of growers, manufacturers, and consumers generally. Kingaroy peanuts are now regarded as the hallmark of quality in the southern markets. Increasing sales of the Virginia Bunch variety are reported, so that growers will be well advised to increase their area of this type during the forthcoming season in preference to the Red Spanish. Peanut-growing is also showing expansion in the Rockhampton district and on the Atherton Tableland, the product being chiefly utilised for western and northern markets.

Sorghum.

The value of saccharine sorghums for fodder and silage purposes is becoming increasingly recognised, particularly in the drier farming areas where maizegrowing becomes a hazardous proposition. On the Darling Downs the saccaline and imphee crops proved of great value during the autumn months, when natural pastures were declining owing to the dry seasonal conditions. The Italian variety is proving excellent for fodder, and efforts are being made to build up a supply of pure seed. Experiments with grain sorghums were continued, twenty varieties being tested at Bowen, Mackay, Rockhampton, Biloela, and on the Downs. All varieties were hooded in order to secure pure seed. Propagation plots of promising dwarf-growing types were established at various centres on the Darling Downs and seed obtained for further trials. During the forthcoming season it is proposed to harvest small areas with the reaper-thresher or header-harvester. If successful, the crop will become increasingly popular as an economical and reliable grain for stock-feeding purposes, which should prove of particular benefit to pig and poultry farmers.

TOBACCO.

In order to give an idea of the fluctuations of the tobacco industry in Queensland during the 1935-36 season, it is deemed advisable to include the following rainfall table showing the average and actual rainfall in the principal districts during the growing period:—

—	Mareeba.		Bowen.		Mackay.		Miriam Vale.		Texas.	
	Average.	Actual.	Average.	Actual.	Average.	Actual.	Average.	Actual.	Average.	Actual.
January	948	564	1,037	815	1,449	878	1,003	926	332	296
February	737	1,219	884	1,667	1,147	2,799	840	258	258	11
March	697	1,239	576	2,616	1,227	3,153	497	608	227	327
April	272	116	283	26	656	65	326	71	115	63
Total	2,654	3,138	2,780	5,124	4,479	6,795	2,666	1,863	932	697

Thus it can be seen that, while the northern portion of the State suffered from excessive rains, the southern section experienced the reverse to such an extent that in the Texas district the water supply on many farms was so depleted as to allow insufficient for irrigation. This naturally affected both yield and quality, but in spite of this the average quality of the leaf is in advance of past seasons. These latter remarks could also be applied to the Miriam Vale area, where splendid rains in March saved severe damage, and the resultant crops were the finest in the State.

Remarkable though it may seem, the abnormal rains in the North did not cause the severe damage that was expected, except in the Bowen district and on badly-drained areas, especially at Mackay and Mareeba. It was at Sarina that probably the worst trouble was experienced—not so much with the growing crop as with newly-planted areas, which in many instances were completely washed out. The land became so waterlogged that it was impossible to carry out any operations for a considerable time, and the major plantings were not commenced until late in the season.

It is worth recording that in a portion of the Mackay district (Koumala) standing crops withstood the enormous amount of approximately 60 inches of rain. Although ripening was earlier, the leaf cured a wonderful colour and carried a fair amount of body, while in the first sale of the season leaf from one crop realised 48d. per lb. The surprising feature is that from the time the crops were planted out in the field, harvested, cured, graded, and sold, only three months had expired.

At Mareeba and Dimbulah the average quality of the leaf was good, top leaves in many instances curing as bright as the bottom, with the result that in many crops the colour was very even—more even, in fact, than has previously been experienced.

Late crops in all districts made splendid growth, especially in the Mackay-Sarina area, where the yield will be in the vicinity of 800 lb. per acre. On the whole, the season's crop was fairly heavy, while the quality of the leaf was of a higher average than hitherto produced. It is anticipated that additional acreages will be placed under tobacco in all districts during the coming season.

The following is an estimate of the acreage under tobacco during the 1935-36 season and the possible yield:—

District.	No. of Registered Growers.	Acreage.	Yield in lb.
Dimbulah	511	1,000	515,200
Mareeba		1,750	672,000
Woodstock	24	70	19,300
Harvey's Range, Ingham, Charters Towers, and other Northern areas	52	12 20	6,500 6,000
Bowen	39	125	56,000
Mackay and Sarina ..	60	163	80,000
Miriam Vale and Bundaberg	42	104	76,000
Beerburrum and South Coast centres	34	20	6,000
Texas and Inglewood ..	144	*579 †69	*474,880 †60,480
Total	906	3,912	1,972,360

* Flue Cured. † Air Cured.

Auction sales for current season's leaf have been very successful, and growers generally expressed appreciation of values received. Increased demand has been brought about by the further protection offered local leaf by the differential tariff operating on imported leaf where less than a given percentage of Australian leaf is to be included in the process of manufacture. This has caused certain buyers to operate who have not conducted buying operations in this State for some considerable time.

General instructional work on the cultivation, growing, curing, and grading of tobacco is being carried out by agricultural instructors stationed in the principal districts, while a comprehensive programme of experimental work embracing the following has been carried out.

Details of these will be found in the reports of the instructors in agriculture:—

Fertilizer Trials (Latin Square).—Yelarbon, Miriam Vale (3), Inkerman, Koumala, Dunwold, Woodstock (2), Dimbulah (5), Mareeba (5).

Randomised Variety Trials.—Yelarbon, Miriam Vale, Bundaberg.

Topping Trial.—Dimbulah.

Green Manurial.—Yelarbon, Miriam Vale (2), Sarina, Koumala, Dunwold, Inkerman, Woodstock, Mareeba (2), Dimbulah (2).

Seed Selection Plots.—Established in the Rockhampton district. These consist of small rows of each variety from which only plants showing trueness to type are selected for seed production, and only selected flower-heads hooded. In this way it is hoped to obtain disease-free seed of pure types. The resultant seed is set out in seed propagation plots.

Tobacco Seed Propagation Plots.—Last season's seed propagation plots comprised: Bajool pure seed area—one each of Hickory Pryor, Yellow Pryor, and Cash; Gayndah district—Jamaica (2), Bonanza (2), Gold Dollar (2), and one each of Hickory Pryor, Yellow Pryor, and Cash.

The popularity of the Department's seed supply will be found by reviewing the particulars of the seed distributed during the 1935-36 season:—

Hickory Pryor.	Yellow Pryor.	Cash.	Warne.	Gold Leaf.	Jamaica	Bonanza.	Total.
Oz.	Oz.	Oz.	Oz.	Oz.	Oz.	Oz.	Oz.
384	115	286	275	22	99	202	1,403

This amount of seed is sufficient to provide plants for the whole of the area devoted to tobacco in Queensland.

Exploratory Plots.—With the object of testing out soils in new areas that are expected to produce a good-quality leaf, small exploratory plots were established at Ridgelands, Beranjondo, Yandaran, Elliott River, Kolan River, Riverview, Boolboonda, Mt. Perry, Monto, Biloela, Dululu, Theodore, and Baralaba. In addition, small commercial plots were carried out in the Gayndah and Barcaldine districts, and the indications are that these inland areas are capable of producing fair-quality leaf. Further trials are to be instituted this coming season.

Preliminary trials have been made at Woodstock and Sarina with deep cultivation methods as practised in some sections of the United States of America, while at Mareeba an attempt has been made to grow winter cereals after peanuts in preparation for tobacco. Rye, wheat, and oats were sown with and without fertilizer.

The Tobacco Industry Protection Act.—No doubt exists that since the inception of this Act and the enforcement of its provisions pests and diseases have shown an appreciable decrease.

The number of registered growers in Queensland is 906, which is made up as follows:—

District.	Areas.	No. of Registered Growers.
No. 1	Cooktown	2
No. 2	Mareeba-Dimbulah	511
No. 3	Townsville to Bowen	99
No. 4	Mackay-Sarina	60
No. 5	Bundaberg-Miriam Vale	42
No. 6	South Coast	34
No. 7	Texas-Inglewood	144
No. 8	Rest of State	14
Total		906

Breeding of Disease-Resistant Varieties.—Crossing of types at present under cultivation with one another, as well as with native varieties, with the object of evolving more robust and disease-resistant varieties which at the same time will produce good yields of high-class tobacco, has been carried out at Rockhampton by Mr. G. B. Brooks.

PASTURE IMPROVEMENT.

During the period under review the Agricultural Branch has continued and expanded its various interests in experimental and demonstrational work in connection with pasture improvement. In addition to conducting trials in various districts and distributing planting material of useful introduced grasses, the Branch has co-operated with both the Pasture Improvement Committee and the Experimentation Committee within the Department in carrying out pasture trial work.

The chief lines along which pasture investigation work is being pursued are as follows:—

1. Testing of recently introduced pasture plants in various districts;
2. Establishment of propagation plots of the more promising introductions, and the distribution of seeds and roots to interested farmers and graziers;
3. Trials of both well-known and new pasture plants in newly opened-up districts;
4. Trials with winter pasture mixtures;
5. Experiments on the control of pasture weeds (particularly mint weed and mat grass); and
6. Top-dressing experiments on lucerne fields.

The past year's operations along each of the above lines are summarised in the accompanying staff reports.

Work on pasture plant improvement by breeding and selection has recently been commenced by a Commonwealth officer working under a co-operative scheme controlled by a committee representative of the Commonwealth Council for Scientific and Industrial Research, the Queensland Agricultural High School and College, and the Department of Agriculture and Stock. The aim of the work is the production of bred strains of cultivated and native pasture plants which will be an improvement upon the material at present available for sowing.

SOUTH JOHNSTONE (Bureau of Tropical Agriculture).

With the appointment of Mr. C. J. McKeon as Director of Tropical Agriculture, and his establishment at South Johnstone in September last, it has been possible to commence the repair work and renovation necessary to prepare the station for the desired experimental and research work. A commencement has been made with the transference of the grass propagation plot at Woodstock to South Johnstone, while attention has been given to the initial cultivation of a number of summer crops, fruits, and fibre plants, full details of which are included in Mr. C. J. McKeon's annual report. The staff appointed to South Johnstone includes L. G. Miles, Ph.D., B.Sc.Ag., Plant Breeder; W. Cartmill, B.Sc.Ag., Analyst; and G. W. Agnew, Pomologist. Mr. McKeon will also exercise supervision over general experimental work throughout the northern areas.

ST. LUCIA BOYS' TRAINING FARM.

During the period under review sixty-six boys completed their training and were placed on farms throughout the State, in addition to which four boys were granted a twelve months' scholarship to the Queensland Agricultural High School and College. Necessary farm buildings were completed, the work being carried out by the trainees under supervision. Farm work proceeded satisfactorily throughout the year, instruction being given on all crops adapted to coastal climatic conditions, while the substantial dairy herd provided adequate training in this important industry. Further particulars regarding the activities of the Training Farm will be found in the Supervisor's annual report.

GENERAL.

Further particulars regarding the experimental work mentioned in this report will be found in the reports of the Senior Instructors in Agriculture and Instructors in Agriculture forwarded herewith. This work has included trials with winter fodder crops, pig fodder crops, Sudan grass, cowcane, millet, broom millet, cowpeas, sweet potatoes, lucerne, onions, and soya beans.

PUBLICATIONS.

- "Clean Crops and their Value to the Farmer," by A. E. Gibson, Director of Agriculture.
- "Quality in Bright Tobacco, and Home Grading," by N. A. R. Pollock, Senior Instructor in Agriculture.
- "The Potato" (revised), by H. W. Ball.
- "Productive Seed," by N. A. R. Pollock, Senior Instructor in Agriculture.
- "Seasonal Farm Crops," by C. J. McKeon, Director of Tropical Agriculture.
- "Pasture Improvement," Report of Pasture Improvement Committee.
- "Sown Pastures for Queensland," by C. W. Winders, Agronomist.
- "The Poisoning of Undergrowth with Arsenic pentoxide," by F. Skinner, Field Cadet.
- "Management of Sown Pastures," C. W. Winders, Agronomist.
- "Problems of Pasture Maintenance and Rehabilitation in Semi-arid Queensland," by C. W. Winders, Agronomist.
- "Lucerne Cultivation" (revised), by H. W. Ball.
- "Skeleton Weed. Danger of Introduction to Farming Areas in Queensland," by H. W. Ball.
- "Value of Legumes in Mixed Pastures," by C. W. Winders, Agronomist.
- "A Programme of Pasture Improvement," by C. W. Winders, Agronomist.
- "Agricultural Notes" (Monthly), by officers of the Agricultural Branch.

A. E. GIBSON,
Director of Agriculture.

STAFF REPORTS.

SOUTHERN DIVISION.

Mr. N. A. R. POLLOCK, Senior Instructor in Agriculture, reports:—

SEASONAL CONDITIONS.

In the report for the year ending 30th June, 1935, it was noted that, in the concluding months of that year, good rains were required to provide bottom moisture for winter and early spring growths. Rainfall for the month of July was just a little under the average for that month, but, in view of the preceding dry months, insufficient to promote satisfactory growth of winter fodders. During August precipitations were about half of the average, accentuating the position. The months of September and October, however, in which over-average falls were generally recorded, relieved a situation that had become serious. November was a very dry month, most centres recording 2 to 3 inches under the average, while December also provided, in most parts, a total of from ½ to 1 inch below the average. A heavy fall in the second week of January gave an over-average precipitation in most centres, but was followed by a heat wave which continued through February, when the rainfall was from 2 to 3 inches under average. During the first week of March heavy falls gave a record for the month over the greater part of the division except in a rough triangle between Tara, Cambooya, and Warwick, where the falls were from 50 to 180 points below the average. April and May were particularly dry, and up to the third week in June the fall has been just around 100 points for the month. Seasonal conditions were thus very far from favourable, both from a pastoral as well as an agricultural standpoint. Graziers had periods of anxiety between relieving falls of rain, but, on the whole, when not overstocked, came through the year fairly well. A number, however, suffered in the depletion of water supply, through which stock had to be found agistment elsewhere. Farmers suffered from crop failures wholly or partly, their returns therefrom being almost negligible.

Dairymen have had a most trying time, many having suffered loss by deaths due to lack of fodder supply, others through forced sales or by transference of their stock to other parts for agistment. Supplies to butter and cheese factories and of pigs to bacon factories have shown marked declines. The outlook at present is distinctly unsatisfactory, for much rain is needed to allow of the wheat crop, as well as others winter-sown, making satisfactory growth, as well as pasturage.

WHEAT, BARLEY, OATS, AND CANARY SEED.

Grain yields of wheat, barley, &c., were, in many directions, very unsatisfactory, though where fallowing was practised the return was more favourable. Much less profit from the grazing of the growing crops was obtained than is usual in a favourable season. As fodders for feeding off by dairy cattle, the growth of these cereals is common on the Darling Downs and centres contiguous thereto, the supply of milk and cream to factories being largely dependent on their success. Except in favoured localities towards the crest of the Dividing Range, supply in this manner was in many centres inadequate, resulting, where stored fodder was unavailable, in some loss of stock.

MILLETS, SUDAN GRASS, AND FODDER SORGHUMS.

Crops of Japanese and other millets, as well as of Sudan grass, could in very few instances be termed satisfactory, and in many directions were more or less failures. In a more favourable season portion only of these crops is grazed off, the balance being cut for hay or harvested for seed. Practically no hay was made and little seed garnered for sale.

Fodder sorghums, chiefly what are termed saccharine and imphee, were, perhaps more largely planted, and, though growth was not heavy, they provided an abundance of forage which was much appreciated on the approach of and during the cold weather. Except for the fodder thus provided, many dairymen would have been unable to carry on.

The varieties of fodder sorghums mentioned and usually grown have been so crossed with others, including Sudan grass, that their resemblance to a pure strain has been almost lost. This season the stems are inclined to be pithy or less succulent—a fault due to crossing with Sudan grass, but probably accentuated by paucity of rainfall.

ITALIAN SORGHUM.

A crop of a variety from seed secured from Italy and called Italian sorghum was grown at Allora and yielded very well, considering the season. In appearance it is suggestive of sacchaline when first introduced some twenty years ago. The grower was advised to harvest all the seed, and is understood to have done so.

HONEY SORGHUM.

This variety secured from the United States of America some thirteen years ago, and proved the best in comparative trials in both the Northern and Central Divisions, was tried out in small plots in various directions and has promised well on the Downs. It is proposed to have areas grown in isolated situations for a pure seed supply this coming year. The sale of pure seed of a known productive variety offers an avenue of profit of which it is hoped farmers will shortly take advantage.

CONSERVED FODDER.

Silage.—The ensiling of fodder crops cannot be said to be popular, as, apart from the Government institutions of the Boys' Farm Home at Westbrook and the Mental Hospital at Willowburn, there are extremely few instances of its practice. Discussions with dairy farmers suggested they were alive to its value, but were deterred by the idea of cost, even when the cheapness by excavation of a cylindrical pit was explained.

Hay.—A fairly general practice is to put up any excess of lucerne as hay to provide for a dry period, and also to make hay from Sudan grass, Japanese millet, and, at times, from wheat, oats, and barley. The good price prevailing at the beginning of the year for lucerne hay induced many to sell a part or the whole of their supply. As the poor season allowed very few and small "cuts" of lucerne, and as there was no surplus of Sudan grass or other crops to conserve, the majority are faced with a lack of supply during the winter.

MAIZE.

Partial to total failures of maize crops occurred in all centres; no crop, even under the most favourable rainfall, providing a yield in excess of 30 bushels. Many crops were fed off to dairy cows, while a great many that should have been so treated did not give sufficient yield to pay the cost of picking. Production was much below local requirements. One result of this will be noted more fully later in the year in the supply of pigs to bacon factories, since, owing to the shortage, breeding in many instances was discontinued.

GRAIN SORGHUMS.

Small areas for the production of pure seed of the dwarf varieties Kalo, Brown Yolo, Day Milo, Wheatland Milo, and Dwarf Pink were arranged respectively at Texas, Swan Creek, and Cunningham, Deuchar, Irongate, and Bony Mountain. Owing to lack of rainfall at Texas, the Kalo variety was not sown. Despite the very poor season in the other directions, a quantity of pure seed of the remaining varieties was secured, particularly of the Wheatland Milo, which, through a greater distance from tree growths, was free from ravage by birds. Regarding bird pests, it was noted these were more prevalent than usual owing to the bad season, allowing only hooded heads in the other areas to be garnered. It is worthy of note that in three instances where maize was sown at the same time as the sorghum no grain was obtained —a tribute to the latter's drought-resistance. Sufficient pure seed of the varieties was secured to allow of larger areas being sown, not only for pure seed supply but in comparative trials, this coming season. With the larger area, it is hoped to harvest the grain with a header-harvester.

POTATOES.

Except in localities most favoured with rain and on soils originally covered with scrub growth, potato crops were more or less failures throughout the year. The best returns were secured on the immediate slopes of the Dividing Range from Toowoomba to Haden, spring-planted yielding very much better than summer-planted. Comparative fertilizer, as well as variety, trials at Swanfels and Glencoe, respectively, were failures, those at Swanfels not even returning an equivalent of the seed sown.

Tuber Moth.—It was noted the potato tuber moth (*P. operculella*) was very prevalent in all districts, especially towards the close of the year before the advent of frost. Loss from this pest is collectively very serious and suggests the adoption of measures of control. Infestation of early-planted crops appears to occur in September, in all probability from larvæ carried over in tubers stored through the winter. A treatment of such tubers, destruction of vegetative growth, and the ploughing of the land or growth of a winter cereal thereon immediately the crop has been lifted appear remedial measures. Growers are generally alive to this menace, and it is thought regulations regarding disease and pest control would be generally welcomed.

SOY BEANS.

Comparative trials of five varieties of soy beans were undertaken by farmers in several directions, but seasonal conditions in each precluded results therefrom.

COWPEAS.

Comparative trials of the Black, Clay, Groit, and Poona varieties of cowpeas were undertaken by farmers at Toowoomba, Deuchar, Cunningham, Glencoe, Tara, The Gums, Chinchilla, and Bell, respectively. Seasonal conditions in each direction were more or less adverse, and it was only possible to record yields at Toowoomba, Glencoe, and Deuchar. The periods of growth and yield of green material per acre were as follows, there being two recordings at Glencoe :—

—	—	Black.				Clay.				Groit.				Poona.			
		T.	C.	Q.	L.	T.	C.	Q.	L.	T.	C.	Q.	L.	T.	C.	Q.	L.
Glencoe	November–February	5	19	3	5	7	5	1	12	6	5	2	24	6	2	3	4
	November–March	13	7	0	16	11	15	2	24	13	15	0	0	10	0	1	12
Deuchar	November–February	2	7	0	16	2	3	0	24	6	11	2	12	1	15	1	12
Toowoomba	February–May	3	4	3	8	1	15	1	12	4	3	1	26	3	0	3	16

It will be noted in each trial the yield of the Groit variety was the greatest.

The drought-resistance of the cowpea was well exemplified, as well as its response to rainfall, in the trials, as at Glencoe, following a fall of 3 inches of rain, growth was more than doubled in a month.

The growth of cowpeas is advocated for grazing alone or combined with a cereal, in a rotation of crops, and for ploughing under as a green manure.

CROSSBRED COWPEAS.

A number of crossbred cowpeas were grown at Westbrook from seed *ex* Roma State Farm. Yields of growth were not made, as further supplies of seed were required. Two of the varieties show promise—one for seed alone, and the other, owing to its pronouncedly upright growth, for hay.

TOBACCO.

The production of tobacco leaf in the directions of Texas, Yelarbon, and Inglewood, despite the dry season, has been attended with a greater general success, not only in weight of leaf harvested but in quality, which latter is reflected in the better prices realised. Seasonal conditions at the beginning were not favourable to the development of blue mould, which was further controlled by regular spraying of the young seedlings with colloidal copper or copper emulsion sprays. As a consequence, there was an abundance of plants, a few growers only, who did not spray, having to secure a supply from others.

The setting of plants in the field under irrigation was attended with an excellent strike, and as the manner of such setting was more largely in accordance with departmental advice, a generally better growth than usual followed.

Irrigation.—Applications of water in irrigation were more frequent, owing to paucity of rainfall, and, though blue mould in the field followed each fall of rain, its damage was appreciably lower than for years past. Owing to the low rainfall, water supplies for irrigation became depleted, particularly McIntyre's Brook, which ceased to flow, and the Dumaresq River below "Borella," where the stream disappeared underground. Where deep waterholes were drawn from, a sufficiency was obtained, but on several holdings the supply was inadequate. This was particularly so at "Glenarbon," where the Co-operative Tobacco Growers had 83 acres, and at "Sunny Girl," where share farmers with the Yelarbon Tobacco Co. had a total of 55 acres under crop.

A heat wave in the latter half of January caused much scorching of lower leaf, which was most noticeable on areas where a sufficiency of water was not available.

Tobacco Thrip.—Coincident with the heat wave, a multiplication of the tobacco thrip occurred to such an extent that it assumed pest proportions for the first time in the history of the State. During the previous two seasons its appearance was noted on occasional farms, but without appreciable injury. The insect causes damage only to leaves approaching maturity, no instance of attack on younger leaves or on those of sucker growth being found. The injury is almost wholly confined to the upper surface of the leaf, and is denoted by silvery markings, particularly along the veins and midrib. These markings are evidently due to the stripping of the outer cuticle. Under cure the leaf dries out rapidly and assumes a dingy colour, with the discoloured markings plainly shown.

Advice regarding control was given to all farmers on a personal visit when the pest was first manifest. Though the spray advised—a soapy tobacco infusion—was the cheapest and most easily obtainable, not a single grower made any attempt in treatment. All, however, when realising the loss after harvest, expressed a determination to take early measures in future seasons.

Infestation was not serious on all farms, some suffering severely, others being almost free. The first appearancve was noted at "Glenhurst," near Yelarbon, and later, more or less, on all farms up the river as far as "Riverton," some 80 miles distant.

The pest was most in evidence during February, and practically disappeared after the heavy fall of rain during the first week of March.

Leaf Miner and Stem Grub.—Leaf injury from the miner (*P. operculella*) was negligible on all farms, control having evidently been established by the enforcement of the regulation providing for the destruction of plants shortly after the completion of harvest.

Trouble from the stem grub (*P. heliopa*) was also noticeably less in early growth, though, later in the season, entry was made in the midribs of the larger leaves on many of the plants on several farms. It is understood this pest was more prevalent on the New South Wales side of the Dumaresq River.

Brown Vegetable Weevil.—This insect occasioned no damage.

Wingless Grasshoppers.—On one farm only was attack from the wingless grasshopper experienced, the damage being regarded as small.

Hail and Frost.—No damage was occasioned by hail this year, and, as all leaf was harvested on the majority of farms before a frost occurred on 21st April, there was comparatively little loss therefrom.

Harvest and Cure.—Advice on the picking of ripe leaf only, so persistently given, resulted in a greater measure of attention thereto. At the beginning of the curing season typed instructions, both in English and Italian, were issued to respective growers, giving a suggested amount of ventilation expressed in square feet of ventilator openings at various temperatures for different sizes of barns, both for the cure of medium and heavy leaf. Such instructions, together with the picking of ripe leaf, allowed a very much better colour and quality to be secured in the average product.

Sales.—Though a certain amount of leaf is sold by public auction in Brisbane, the majority of growers prefer to sell to visiting buyers on their farms; consequently, it is not until towards December that a correct idea of average prices can be obtained. For the previous season, the best average price secured by one grower was 2s. 10d. per lb. Others secured an average of between 2s. and 2s. 5d., but the greatest number advised one of between 1s. 9d. and 2s. per lb. This was much in advance of that of the previous year. So far, the prices realised at auction this year show an appreciable advance over those at this time last year, one grower averaging 3s. 0½d. per lb. for his consignment.

Grading and Packing.—Instruction in grading and packing for market has been freely given, and there is little fault to be found with the product of those who exercise care in those directions. There have been, however, instances of the deliberate inclusion of inferior leaf in bales of otherwise good quality in an endeavour to cheat the buyer. As on the farm the latter is protected by a clause in his buying agreement which provides for repudiation if the whole of the leaf in the bale is not equal to the sample drawn, the only effect is to create suspicion of the seller in future. At auction, the buyer is somewhat dependent on the honesty of the grower-seller, so that when each purchase is found to be correctly graded and packed, his product is readily purchased in future. On the other hand, it is to be expected, when grading is found faulty or inferior leaf deliberately included, that purchase is either refused or the price offered much reduced. The failure to secure a bid for sundry lots at auction last year, and their subsequent sale under agreement, suggests such a malpractice has not been uncommon.

Areas, Yields, and Number of Growers.—The number of growers of leaf for flue-curing was 108, and the collective area cropped approximately 579 acres. The estimated yield is 212 tons.

The number of growers of leaf for sun and air curing was 12—mainly Chinese—the collective area cropped approximately 69 acres, and the estimated yield 27 tons.

Tobacco Experiments.—Experiments with fertilizers containing equal quantities of phosphoric acid and potash alone and with three different amounts of nitrogen, together with a control, were repeated in a Latin square experimental plan, there being five plots of each in a total of twenty-five.

Each plot received the same cultural treatment and was harvested and recorded separately.

The rainfall during growth was 512 points, which was 632 points below the average for that period. This, coupled with an insufficiency of water for irrigation, disallowed advantage to be taken of the fertilizers applied, the yields on each plot, as well as the average for each different application and the control, being so close as to preclude any deductions therefrom.

In experiments with fertilizers, it is considered the monetary return is of more importance than that of pounds avoirdupois. It is suggested in future experiments the practice of selling or securing a buyer's valuation of the leaf from each plot be adopted.

Arrangements were made with a grower to conduct a comparative trial with varieties, but as the seed thereof was not supplied until October, or two months later than the usual time of sowing, the tests were not proceeded with.

PASTURE GRASSES.

Towards the close of last year an area of land was secured from the Toowoomba City Council for the propagation and climatic trial of various introduced grasses. As the quantities of roots of most of the varieties available were small, the balance of the area was sown with seed of exotic grasses readily obtainable from seedsmen.

These were:—

Perennial Prairie
Annual Prairie
Cocksfoot
Red Clover
Bull Clover
Alsike Clover
Crimson Clover
White Clover
Subterranean Clover
Subterranean Clover (early strain)
English Trefoil
Burr Trefoil
Italian Rye Grass
Perennial Rye Grass
Wimmera Rye Grass
Sheep's Burnet
Wallaby Grass
Tall Fescue
African Veldt Grass
Lucerne

The season, owing to a light rainfall, was not favourable to growth, but the following grasses showed up very well under such conditions:—Wimmera and Italian Rye, Perennial Prairie, *Phalaris tuberosa*, and Cocksfoot.

Of the clovers, the Crimson variety did very well, but others evidently suffered from lack of sufficient moisture. Burr and English trefoil proved much more productive and more suited climatically than the clovers. Sheep's burnet did very well and suggests a place in a mixed pasture.

Most of the foregoing could only be regarded as possible in localities contiguous to the crest of the Dividing Range, where the rainfall is more suitable than on the Downs proper.

The other introduced grasses established from seed or roots are as follows:—

Amphilophis glabra
Bouteloua gracilis
Brachiaria decumbens
Brachiaria brizantha
Brachiaria dictyoneura
Chloris virgata
Chloris pycnothrix
Chloris distichophylla
Cynodon plectostachyum
Digitaria eryantha
Digitaria milangiana
Digitaria pentzii
Digitaria polevansii
Digitaria valida
Eragrostis curvula
Eragrostis tenuifolia
Eragrostis superba
Ischaemum sulcatum
Iseilma laxum
Ixophorus unisetus
Panicum antidotale
Panicum isachne
Panicum maximum
Panicum coloratum
Pennisitum ciliare
Pennisitum clandestinum
Pennisitum masaicum
Polytrias diversifolia
Urochloa bulbodes
Urochloa pullulans
Urochloa tricopus

The poor rainfall, coupled with a period of great heat during the greater part of January and February, provided a test in drought-resistance, thus establishing the suitability of many kinds for districts of uncertain or light rainfall. Perhaps the most resistant kinds were *eragrostis curvula, E. tenuifolia,* and *Iseilma laxum,* which made growth when others were at a standstill. All others held their own, and when a good fall of rain occurred made wonderfully good growth. The following analyses of various kinds illustrates their fodder value at stated times of growth. It was not possible to secure samples of all kinds at different stages of growth, but this will be attempted in the ensuing year:—

ANALYSES OF WATER-FREE MATERIAL.

Name of Grass.	Protein.	Carbohydrates.	Fat.	Fibre.
	%	%	%	%
Wimmera Rye (in bloom)	20·8	37·9	1·6	25·8
Italian Rye (before bloom)	24·1	38·9	1·3	20·9
Phalaris tuberosa (before bloom)	28·6	34·9	1·9	19·9
Bromus marginatus (in bloom)	19·5	42·4	1·3	26·3
Eragrostis curvula (in bloom)	17·8	44·2	1·2	30·3
Eragrostis tenuifolia (in bloom)	23·1	38·6	2·4	26·7
Chloris virgata (in late growth)	17·2	40·1	1·6	28·6
Cynodon plectostachyum (before bloom)	30·1	35·2	2·5	18·8
Digitaria eryantha (early bloom)	19·1	37·8	1·8	29·4
Digitaria polevansii (early bloom)	18·7	40·7	1·8	26·8
Digitaria valida (early bloom)	20·5	34·8	2·2	29·6
Digitaria pentzii (early bloom)	20·0	39·0	2·1	27·2
Brachiaria decumbens (full bloom)	20·8	38·4	2·2	26·1
Brachiaria brizantha (full bloom)	16·6	43·4	1·6	27·2
Pennisetum ciliare (in seed)	21·0	34·4	1·7	28·8
Pennisetum masaicum (early bloom)	24·1	31·2	1·9	25·9
Urochloa tricopus (before bloom)	27·2	33·2	1·4	23·2
Urochloa pullulans (early bloom)	24·7	34·3	1·1	23·7

The very high crude protein content of Budgee grass (*Cynodon plectostachyum*) is remarkable, especially when growth at the time of cutting was 21 inches high.

The plots of grasses have created considerable interest and evoked expressions of approval of this phase of departmental endeavour. Considerable quantities of roots of several kinds have been distributed, and much more promised after danger of frost is considered past. In addition to providing interested persons with roots, it is proposed to establish trial areas in different districts as soon as climatic conditions allow.

Now that water has been laid on to the plots, it will be possible to propagate a sufficient supply for all trial areas and to later collect from these material for further distribution.

The plots originally growing the grasses and legumes first mentioned, of which seed is readily purchasable, have now been planted up with root divisions of the more promising kinds.

These are:—

Brachiaria decumbens
Brachiaria brizantha
Chloris pycnothrix
Cynodon plectostachyum
Digitaria eryantha
Digitaria polevansii
Digitaria valida
Digitaria pentzii
Eragrostis curvula
Eragrostis tenuifolia
Iseilema laxum
Ischaemum sulcatum
Panicum isachne
Pennisetium ciliare
Pennisetum clandestinum
Pennisetum masaicum
Urochloa pullulans
Urochloa bulbodes
Urochloa trihopus

Mint Weed.—The persistence of mint weed as a pest of cultivations, roadsides, and certain pasture lands has caused perturbation among many landowners, particularly in districts of which Pittsworth and Cambooya may be regarded as centres. Though occurring on several types of soil, it appears to luxuriate on the heavy black, so common on the Darling Downs. Though of annual duration, it is a profuse seeder, and exemplifies the adage of one year's seeding meaning seven year's weeding, thus adding materially to the production cost of cultivated crops. In pastures that are not too closely grazed its spread is controlled, but where the grasses are kept down by close grazing and trampling it assumes an ascendancy, and, being unpalatable to stock, soon crowds out all other than the strongest growths.

A series of experiments towards control by a flame-thrower and various materials applied as sprays, designed by the Agricultural Chemist, were conducted on an area at Wyreema, but proved uneconomical and ineffective. It is proposed, should approval be given, to attempt control this coming year by planting strong-growing grasses of proved fodder value.

Since writing the foregoing, a further fall of rain has occurred which will be of benefit to the wheat crop, seed of which was largely sown in June, and promote the growth of herbage and undergrowths generally.

Mr. C. H. DEFRIES, Instructor in Agriculture (Roma), reports:—

Following early spring rains in September and October, a dry period was experienced, and up to early January feed and water supplies throughout the district were low. Isolated storms in January and February were followed by general rain in March. Natural pastures responded excellently, and water supplies throughout the Maranoa were replenished. The Western Downs country, however, did not receive much of the general rain, and pastoral and dairying conditions there have been unfavourable. East of Jackson only 30 points of rain have fallen since March.

REGIONAL SURVEY.

Duties in the Roma district, which commenced on the 5th December, 1935, have been concerned mainly with a survey of the district in order to ascertain requirements in respect of experimental work and to arrange for the establishment of plots on farms in various localities, It would appear that the major problems of production confronting producers in the Maranoa and Western Downs districts are embodied in the more general adoption of dry-farming principles to wheat and winter fodder growing, the more general use of summer fodders for both grazing and conservation purposes, the efficient management of pastures, and the introduction of suitable exotic grasses to supplement natural grasses. In this connection, it is worthy of note that the reclaimed prickly-pear country of Dulacca and surrounding districts, with a number of comparatively new settlers, presents a wide field for investigation into the possibilities of various summer grasses and legumes, such as Rhodes grass, blue panic, the *Digitarias*, lucerne, winter growers such as Wimmera rye grass and *Phalaris tuberosa*, and the use of various winter and summer fodder crops.

EXPERIMENTAL WORK.

Time in which to arrange work with winter fodders and grasses was too short for extensive operations this season. The following trials were arranged:—

Winter Grasses.—Plots were established at Dulacca on the 23rd March and at Wallumbilla on the 27th March. Soil at Dulacca is a fairly heavy loam, original timber being mainly box with a little wattle.

The following mixtures were sown in one-twentieth acre plots:—

Phalaris tuberosa	3	lb. to the acre.
Lucerne	2	,, ,,
Bromus marginatus ..	12	,, ,,
Lucerne	2	,, ,,
Wimmera Rye	4	,, ,,
Lucerne	2	,, ,,
Prairie Grass	12	,, ,,
Lucerne	2	,, ,,
Sheep's Burnet	8	,, ,,
Lucerne	2	,, ,,
Wallaby Grass	10	,, ,,
Cluster Clover	2	,, ,,

Small plots of late, mid-season, and early strains of Wimmera rye grass were also sown at Wallumbilla. Germinations of lucerne, Wimmera rye grass, prairie grass, and cluster clover have been fair. No rain of consequence has fallen since planting, and no marked growth has been made up to the present time.

Fodders.—Plots have been arranged at Dulacca and Walloon Creek for winter fodder trials, but dry weather has precluded planting.

WHEAT.

Many farmers commenced sowing "dry" in May. The majority, however, are sowing only half their acreage, and, providing early June rains are experienced, the bulk of the wheat will be sown in that month. Isolated early plantings were made at Hodgson and Wallumbilla in March and April, but in most cases germination was only fair.

Heavy March rains made weed control a serious problem this year, particularly where late ploughing was practised. The two dry months following have, however, assisted in control measures.

In order to bring before farmers the necessity for early ploughing and summer fallows in a district of low winter rainfall for the conservation of moisture and control of weed growth, the establishment of comparative summer fallow and stubble trials in suitable locations during the next wheat season has been planned.

GENERAL CROP CONDITIONS.

Sudan Grass.—The most commonly-grown summer fodder throughout the district, this crop has amply demonstrated its value. Crops were light up to January, but with the coming of storm rains good yields were obtained. After the March rain, a heavy bulk of feed was obtained in cases where the crop had been grazed judiciously. In isolated instances the opportunity was taken to conserve surplus material as hay. Climatic conditions favour this crop as a standby for summer, and there is much scope for an extension of its use both as a green feed and for hay or silage. Very few farmers appear to realise the necessity for conserving fodder, and with a crop such as this available it is surprising how few take advantage of it.

Millets.—Other summer fodders such as Japanese millet, Hungarian millet, and white panic are grown only in isolated instances. Success with them is confined to those who practise efficient cultural methods. An excellent crop of white panic on light soil south of Roma indicates its value under these conditions.

Cowpeas.—Cowpeas have proved of value under dry conditions in lighter soils, but their use is limited mainly to vegetable requirements. Their value as a fodder in the district is undoubted, and there is need for extension work as regards variety trials in order to enable their being more widely used.

Maize.—The district generally is not suited for maize as a grain crop, and early-sown crops failed owing to hot, dry winds at tasselling. January-sown crops which were planted in isolated instances at Wallumbilla and Drillham are, however, showing promise.

There is a definite need in the district for a grain crop of similar feeding value to maize for pig-feeding and horses, and probably grain sorghums should be more suitable to the dry conditions. Depredations of birds have, up to the present, precluded their use but, co-operation among farmers in planting larger areas might counteract this when suitable varieties have been established.

Cotton.—Very little cotton was planted this season, owing to the dry weather conditions at planting time.

Pastoral.—Mitchell grass areas have responded well to the unusually late summer rains, and have provided a heavy bulk of feed. Opportunity has been taken of excellent seeding conditions to obtain small quantities of seed from Roma Downs, through Mr. R. S. McGeoch, who has made available a paddock for this purpose.

Other native grasses have seeded well, and this should prove of great benefit in improving areas which have been thinned out by dry seasons or overstocking.

The necessity for grasses which retain their succulence for longer periods than native species has been amply demonstrated this year, when dairy production declined rapidly from the middle of April. Despite the heavy growth stimulated by heavy rains, the grass soon dried off—particularly on the lighter soils—and by the end of April was well forward in seed. The more general use of blue panic and, in some parts, Rhodes grass should do much to supplement native pastures at this stage.

The sandy soils of the pine and wattle country around Yeulba and Miles, while providing good feed for wool production, have been found to be useless for breeding, for which a grass of greater succulence than the native spear, wire, and love grasses provide. Arrangements have been made to conduct soil improvement experiments with cowpeas at Goonoolah, and various strains of *Lespidezias;* and also to test the growth of *Digitaria* species and budgee grass on selected treated areas.

STATE FARM.

The 20 acres reserved at Bungeworgorai for further wheat-breeding and other purposes have been kept in good tilth during the year, and are now ready for sowing when conditions permit.

Grass plots have continued to make good growth, and further extension work with the various species during the forthcoming season has been planned.

CENTRAL DIVISION.

Mr. C. S. **CLYDESDALE**, Senior Instructor in Agriculture, reports:—

During the season under review the seasonal conditions during the first six months were unfavourable from the agriculturists' and pastoralists' point of view.

A welcome change was experienced during late December, when good precipitations were recorded throughout the division. These were followed by further falls early in January, which were accompanied by a high south-easterly wind and greatly helped to reduce the high temperatures that were prevailing after several months of hot conditions which resulted in the burning-up of the pastures and caused a serious shortage of water for stock purposes in many parts; these rains were of untold benefit. Throughout January good rains were experienced.

The February registrations of 28 inches were the heaviest recorded since 1898. For seventeen days in March, 31·35 points were recorded, and this is the heaviest recorded since 1882.

The March rains, following on the heavy registration in February, caused much concern to all sections of farming, and more particularly to the dairying industry where their supplies of cream could not be delivered due to the creeks becoming flooded and transport seriously hampered. This continued wet weather created waterlogged conditions and retarded rather than assisted plant growth.

The records are as follows:—

Month.	Mackay.		Sarina.		Dunwold.		Koumala.	
	Wet Days.	Points.	Wet Days.	Points.	Wet Days.	Points.	Wet Days.	Points.
1935.								
July	5	146	5	199	No official gauge at these Stations until 1936			
August	14	100	8	124				
September	6	270	4	330				
October	8	253	5	317				
November	8	81	5	274				
December	7	148	6	355				
1936.								
January	18	878	16	986	16	661	18	1,008
February	22	2,799	21	3,870	18	2,553	22	2,841
March	22	3,153	19	2,904	16	2,605	21	1,724
April	13	65	5	53	4	60	6	99
May	20	404	9	183	12	322	7	136
June	21	1,021	12	873	19	1,007	17	867

DAIRYING.

The seasonal conditions prevailing during the early part of the year were considered too dry from a dairyman's point of view.

From October onwards light showers gave immediate relief in that pastures made good growth and an increase was noticeable in the cream supplies. The abnormal rainfall experienced in February and March created a rank growth of grass, and the return of butter-fat per cow has not been as heavy as in seasons of normal rainfall.

Keen interest is now being taken in dairying in this division. The newly-opened land in the O'Connell River, Rise and Shine, Eungella, and Blue Mountain districts should lead to further dairy production.

The approximate output for the Mackay Co-operative Butter Factory for the twelve months is as follows:—

Month.	Lb. of Cream.	Lb. of Butter.
1935.		
July	42,422	22,176
August	38,835	19,765
September	41,534	21,449
October	63,472	33,706
November	78,604	42,265
December	70,111	37,376
1936.		
January	118,114	65,874
February	138,697	78,098
March..	106,513	60,610
April	85,398	47,340
May	61,246	33,611
June	49,405	26,622

ACTIVITIES.

In furtherance of the policy, attention has been devoted to experimental plots and demonstration areas, which work has been carried out in conjunction with general instructional duties.

The experiments embrace green manure and fertilizer trials with tobacco; trials with grain, sorghums, onions, and cowpeas; dairy winter fodder crops and pig fodder trials were also grown demonstratively; pasture improvement plots were established at different centres for both winter and summer growing grasses.

FERTILIZER TRIALS (LATIN SQUARE) WITH TOBACCO.

During the present season (1936) a continuation of the experimental trials with tobacco were carried out with different fertilizer mixtures.

The trials were arranged for in two districts—Koumala and Dunwold—with Messrs. R. J. and C. A. Atherton and C. A. Preston and Son, respectively, who co-operated by providing the land and assisting in the cultivation and curing of the crops.

The wet conditions experienced in each of the districts during the growing period (February and March) were far above normal, causing a severe check in growth and hastening muturity, which was responsible for the low yields that were obtained.

The plots were planted during late December and early January and showed good growth until the heavy rains. Harvesting was commenced approximately fifty days from planting out in the field, and portion of the leaf ripened immaturely.

Due to the adverse conditions under which the crops were grown, there was no marked difference in the growth of the plants or the quality of the leaf harvested from the different fertilizers used. The cured leaf showed an excellent colour, but was very light in body.

The prices realised for the leaf sold at the recent auction sales varied from 42d. to 12d. per lb. Samples of leaf were collected from each of the experiments for smoking tests.

GREEN MANURIAL CROPS TO BE FOLLOWED BY TOBACCO.

Experiments were designed to try to ascertain the most suitable class of green manure crop that can be grown and followed by tobacco.

As most of the tobacco soils are of a sandy type, it appears that, from the recent crop returns, the maximum results are not being obtained from the fertilizer applied, due, no doubt, to an insufficiency of humus and nitrogen.

Arrangements were made to have these experiments conducted at Sarina, Koumala, and Dunwold with Messrs. F. Eller, R. J. and C. A. Atherton, and C. A. Preston and Son, respectively.

The varieties used were Poona pea, Peanuts, Sudan grass, Groit cowpea, Japanese millet, Sun hemp, and *Crotalaria goreensis*. The area comprised half an acre and divided up into twenty plots each one-fortieth of an acre.

In addition to the green manure, plots were set aside for fallow and tobacco. The whole was fertilized with 4-12-6 mixture at the rate of 280 lb. per acre.

The sowings were made as follows:—Koumala, 31-1-36; Sarina, 17-1-36; and Dunwold, 9-1-36.

In view of the different varieties of crops that were being experimented with, arrangements were made to have these as uniform as possible. All varieties were planted in drills 2 feet 6 inches apart, making nine drills to each plot.

Koumala and Sarina.—Good conditions prevailed after planting and germination was excellent. Heavy wet conditions set in, causing the land to wash and become waterlogged—so much so that very little of the crops remained, and what was left died out, due to the sodden nature of the land.

Dunwold.—Germination of the crops was good, with the exception of *Crotalaria goreensis.* Generally, all varieties made good growth. The ploughing-under of the crops was delayed, due to the wet conditions prevailing when the crops had reached the right stage.

Peanuts (Red Spanish).—This crop flowered when only about 4 inches high, and then produced a second growth. The second growth showed an excellent amount of dark-green foliage, averaging 2 feet 3 inches in height, and also a heavy yield of nuts, approximate yield of green weight being 9 tons 1 cwt 3 qr. per acre.

White panicum showed good stooling, broad flag, and stem, and when ready for ploughing under averaged 3 feet 6 inches in height. Approximate weight of green material, 7 tons 11 cwt. 1 qr. per acre.

After the ploughing-under of the crops had been completed a very noticeable feature was the condition and colour of the soil. Those plots occupied by peanuts showed a dark colour, indicating that the fertility had been increased to a great extent.

TOBACCO.

American Methods of Cultivation.—Following on Mr. Mandelson's visit to the Mackay district, it was decided to carry out experiments with the above methods on one of the farms in the Sarina district. Arrangements were made with Mr. L. Gerry, of Sarina, to use these methods of cultivation on portion of his later crop.

The land selected for this purpose is representative of the soils in the Sarina district and had been lying fallow for four years previous to this season's planting. It was ploughed early in the season and a cover crop of Poona pea was sown. This crop made excellent growth, reaching an average height of 2 feet 3 inches, and was ploughed under in February previous to the heavy rains. This operation completed, the land was sunder-cut and harrowed, and a "Cotton King" used for marking out the drills. With this implement small hills were made, to which the fertilizer was applied, and a further turn of the "Cotton King" mixed the fertilizer with the soil and brought the hills to the required height.

Planting-out was completed early in April, and at the time the experiments were carried out the crop was just two weeks old, about 4 inches high, and looked very promising. From this crop three rows for trial were selected by Mr. Gerry.

The first operation of aerating the soil was performed with a scuffler tyne attached to an old plough from which the mouldboard had been removed. Two furrows were made on each side of the rows to a depth of 6 to 8 inches, but, unfortunately, owing to the height of the hills, it was not possible to get as close to the plants as was desirable.

This operation was followed by throwing a furrow up to the plants on either side, and a small mouldboard pony plough was used for this work. On account of the drills being only 3 feet 6 inches apart, it was impossible to turn another furrow, and the cultivation was completed by cleaning the middles with a double mouldboard plough.

This work was carried out on the 16th April, and when inspecting the crop a few weeks later an improvement in the growth of the plants in the selected rows was noticed when they were compared with the adjacent rows.

In the second cultivation the single-furrow mouldboard (pony type) was used when the plants were about 15 inches high. The furrow was made about 6 to 8 inches from the plants and the soil thrown up to the plants. This operation was completed by the cleaning-out of the centres, and a double mouldboard type of plough was used.

It was found impossible to carry out the third cultivation owing to the closeness of the rows and to the fact that the crop made such rapid growth that any further horse-work would have been detrimental in so far that the roots would have been disturbed,, thus causing a severe check in the growth of the crop.

On a recent inspection of the experiments on the 6th June no appreciable difference was noticed in the growth of the selected rows when compared with those adjacent, but the cultivated drills certainly appeared more even.

General Conditions of Tobacco.—Conditions prevailing during October and up to the middle of November were dry, with cold nights, and were considered unsuitable for seed-bed work.

Seed work had been commenced by odd growers early in the season, and this resulted in an outbreak of blue mould. Early action was taken and the beds destroyed.

From the middle of November onwards warm conditions prevailed, and the majority of growers made a start with this work. Early rain in January gave promise of a good season, and growers forged ahead with planting-out, so that by the end of January large areas had been established in the field.

Early in February heavy falls had been registered, but by the middle of the month there appeared to be a break in the weather, and many of the growers set about refertilizing their crops. Unfortunately, heavy rain was again experienced, and did not show any improvement until the 17th of March.

The crops established early in the year on well-drained country were not affected to the same degree as those on the low-lying areas.

These crops ripened earlier than usual, but, notwithstanding the abnormal wet conditions that the crop went through, the leaf cured out a wonderful colour and carried a medium amount of body. This is borne out by the fact that, in the first auction sales of the year, a small consignment of this leaf realised 48d. per lb.

As soon as the heavy rains ceased on the 17th March a certain amount of time elapsed before any move could be made to prepare the land for the late planting, and it was not until the latter end of the month that planting was again commenced.

The weather experienced during April was most unfavourable; cold conditions and high winds prevailed, causing much concern. Fortunately, early in May light rains fell and warm conditions set in. Crops responded well, making excellent growth, and all the late planting is now showing good promise. It is considered that the average yield from this crop should be in the vicinity of 800 lb. per acre.

Disease.—With the abnormal wet conditions prevailing and the lateness of the crop, no disease of any serious nature has been experienced.

"Damping off" caused some damage in the seed-beds, but was controlled by the use of "Chestnut mixture." Many of the growers made free use of blustone fines and potash-soft soap spray.

"Frog-eye" and "barn spotting" showed up to a certain degree, but not sufficient to cause any concern to growers.

The number of growers and the approximate acreage planted and the estimated yield of leaf are as follows:—

Sub-District.	Number of Growers.	Approx. Acreage.	Estimated Quantity of Leaf.
			lb.
Sarina	14	47	22,400
Balberra and Munbura ..	8	43	23,100
Koumala	8	45	21,000
Dunwold	2	9	5,000
Blue Mountain	1	6	600

PASTURE IMPROVEMENT.

In pursuance of the policy of introducing grasses throughout the different dairying centres, arrangements were made for establishig plots in the Eungella, Blue Mountain, Rise and Shine, O'Connell River, and Calen districts.

The varieties used are as follows:—*Digitaria eriantha, Digitaria polevansii* (Inkrup strain), *Digitaria valida, Digitaria pentzii, Digitaria polevansii* (Kuruman strain), *Panicum coloratum, Panicum maximum* (Fine Stem Guinea), *Andropogon nodosus, Andropogon distachys, Eragrostis cervula, Urochloa tricophus, Urochloa pullulans, Panicum muticum, Melenis minuti flora, Cynodon plectastachyum.*

At all the above centres the grasses that have shown good progress are *Panicum coloratum, Panicum maximum, Panicum muticum,* and

Andropogon nodosus. Other grasses have made fair growth, but the varieties mentioned above are the most promising at the present time.

The grasses established in the pasture improvement plot on Mr. J. Michelmore's property, Nebo road, Mackay, have served a very useful purpose in so far that we have been able to draw supplies from this area.

In addition to the above, plots of winter-growing grasses were established in the following districts, viz.:—Calen and Rise and Shine, with Messrs. H. G. Mulherin, J. M. McDonald, and J. Hold, respectively.

An area of one-quarter of an acre was allotted to each trial and four different mixtures used:—

No. 1—
Phalaris tuberosa
Cocksfoot
Lucerne.
No. 2—
Perennial Prairie
Lucerne.
No. 3—
Wimmera Rye Grass.
Lucerne.
No. 4—
Italian Rye Grass
Red Clover.

At the Rise and Shine forest land was selected, while at Calen the plot was divided and both forest and scrub land used. Planted early in May under good conditions, satisfactory germination resulted, and further good rains have fallen which should give the grasses an excellent start.

Farmers generally are realising the advantages that can be gained by the improvement of their pastures, and are now showing considerable interest in this work.

The grasses that have made good progress are *Panicum muticum,* Rhodes, and Molasses grass. On the higher lands, such as the Eungella Range, the winter-growing grasses and clovers are becoming more popular.

DAIRY WINTER FODDER TRIALS.

Demonstrative plots of winter-growing fodders were arranged in the Blue Mountain district in order to afford a practical illustration of the benefit of making provision for dairy herds during the leaner periods of the year, when a shortage of young succulent grasses is being experienced, and that crops can be produced during this period which will greatly assist in keeping up the normal milk supply and also hold the cows in good condition until favourable weather is experienced and the natural and artificial grasses again become palatable.

The crops used in this experiment are as follows:—Florence wheat, Skinless barley, Belah oats, Canary seed, and Dun field peas.

The area comprised 2 acres, each plot being a-quarter of an acre in extent, making eight plots in all. In the first series wheat, oats, barley, and canary seed were sown alone, and in the second series the same cereals were used in conjunction with Dun field peas.

The land selected for the trials was forest land and typical of the district. Planting was carried out on the 7th May. In the first series seed was sown broadcast. then harrowed and rolled, while in the second series the Dun field peas were broadcast, spring-tooth cultivated, and the cereals then sown, harrowed, and rolled.

Light rains were experienced soon after sowing, and good germination resulted. Further good rains have fallen which should ensure a good crop.

ONION TRIALS.

Onion-growing has been carried out in the several districts of the division more as a market garden crop, and no information is available where any farmer has tried to produce this crop on commercial lines.

The results that have been obtained from these small plots invariably show that the onions produced are not suitable for market purposes, as they are on the large size and irregular in shape. This can be accounted for by the indifferent methods of spacing, cultivation, and probably the use of unsuitable varieties.

There is a considerable area of good land available throughout the district which is considered suitable for the production of this crop, and farmers are anxious to find some new crop which might be profitably grown and worked in conjunction with other classes of crops now being produced.

In view of the success that has been obtained from small plots, experiments have been inaugurated with the object of collecting data in connection with the soil types, planting periods, varieties, &c., the suitability of the crop to any particular district, and whether onions of good quality and good keeping properties can be produced.

The experiments designed consist of six varieties, and have been established with the following farmers in the different districts, viz.:—

Name.	District.	Varieties.	Date of Planting.
C. Damro	O'Connell River ..	Hunter River Brown Spanish, Extra Early Golden Globe, Early White Hunter River, White Imperial, White Pearl, Imperial White Spanish	27 April, 1936
E. S. Abell	Blue Mountain ..	ditto	13 May, 1936
Gralton and McMasters	Collinsville ..	ditto	16 June, 1936
J. McDonald	Rise and Shine ..	Hunter River Brown Spanish, Extra Early Golden Globe, Early White Hunter River, White Imperial	29 April, 1936
F. Hebblewhite	ditto	ditto	28 April, 1936
W. J. McDonald ..	O'Connell River ..	ditto	29 April, 1936
J. W. Howie	Bee Creek, Eungella	ditto	6 May, 1936

In addition to the above plots, arrangements were made with Mr. E. S. Abell, Blue Mountain, to plant up bulbs of the Southport White Globe variety, which were received from Head Office, for the purpose of raising increased supplies of seed. The bulbs were planted out early in May and are now showing good growth.

PIG FODDER VARIETY TRIALS.

A request was received from the Mackay District Co-operative Bacon Association for the establishment of comparative fodder test plots for the purpose of testing different classes of fodders for pig-feeding purposes.

Arrangements were made for four plots, each 6/10ths of an acre. The farmers co-operating are Mr. E. S. Abell, Blue Mountain; L. G. Barber, Carmila West; E. H. Hawkins, West Plane Creek; Messrs. Wallen & Ansernett, Rise and Shine.

The varieties comprise Long Red mangels, Yellow Globe mangels, silver beet, sugar beet, Monarch swede turnip, and Dwarf Essex rape.

The prolonged wet weather during March and February was the cause of considerable delay in getting the land ready for planting. Sowings were made on the following dates:—Rise and Shine, 6th May, 1936; Carmila, 21st May, 1936; Sarina, 4th June, 1936; Blue Mountain, 13th May, 1936—and were carried out with the Planet Junior. Good conditions have prevailed since planting and the plots should get a good start.

GRAIN SORGHUMS.

Twenty varieties of grain sorghums recently introduced from United States of America, Egypt, and South Africa were received from Head Office for the purpose of raising increased supplies of seed and for carrying out an observation trial.

Arrangements were made early in the season for the planting-up of the varieties with the following farmers:—

Name.	District.	Variety.
J. Adderman	O'Connell River	Sharon
E. Wallen	Rise and Shine	Standard Milo
F. Hebblewhite	Rise and Shine	Club Kaffir
W. Nimmo	Karramel	Giza 4
E. S. Abell	Blue Mountain	Day Milo
R. J. Wood	Eungella	Red Forte Haye
Preston and Son	Dunwold	Black Hull Kaffir C17
E. S. Blake	Dunwold	Wheatland Milo
W. Nimmo	Karramel	Brown Yolo

Arrangements were also made for an observation trial of all varieties alongside the pasture improvement plot on Mr. Michelmore's property on the Nebo road. Owing to the heavy wet conditions experienced during the early part of the year, it was impossible to prepare the land for planting.

When conditions again became normal the season was well advanced and considered too late.

Those varieties which were planted previous to the wet suffered to such an extent that little or no seed will be forthcoming.

COWPEAS.

During the past few seasons several of the growers in this division have been following the practice of growing green manure crops with the object of increasing the nitrogen and humus content of the soil. The crops used are Sudan grass and cowpeas.

Most of the varieties of cowpeas being grown are susceptible to nematode attack, and the continual growing of this crop may increase the nematode infestation to such an extent as to cause serious damage.

In view of the success that has been obtained from the new crossbred cowpeas bred at the Roma State Farm, experimental plots have been established with the purpose of raising increased supplies of seed and testing their behaviour as to nematode resistance.

As some of the varieties have already shown a resistance to nematodes, they should prove of great value to the tobacco-grower.

The plot of eight varieties was established on the farm of Mr. W. Nimmo, Karramel, and the varieties are as follows:—

Large White x Skewbald x Poonah—Sel. 1.
Large White x Skewbald x Poonah—Sel. 2.
Large White x Skewbald x Poonah—Sel. 3.
Large White x Skewbald—Sel. 1.
Large White x Skewbald—Sel. 2.
Snake x Poonah—Sel. 1.
New Erra x Poonah x Mammoth—Sel. 1.
Large White x Skewbald x Mammoth—Sel. 1.

Conditions prevailing during the latter part of the year were too dry to allow for the preparation of the soil.

Planted late in February when conditions were most promising and good moisture present, the germination of all varieties was good and the plants got an excellent start. In March heavy wet conditions set in—so much so that the land became waterlogged and a large percentage of the plants commenced to die off

When conditions improved, the plants responded well and made fair growth, and are now setting seed-pods.

During the last inspection all plants showed a heavy infestation of grub and insect pests, which will, no doubt, greatly reduce the yield.

POTATOES.

Throughout the district several small areas of English potatoes were planted late in the season and are now showing good promise. The lateness of planting has been due to the prolonged wet conditions that have been experienced.

It is interesting to note that increased attention has been given to the production of this important product.

MAIZE.

The maize crops in the Eungella and Blue Mountain districts are showing promise of giving good yields of well-filled grain.

Mr. N. E. Goodchild, Senior Instructor in Agriculture (Rockhampton) reports:—

The season under review opened auspiciously with excellent late winter rains throughout the Central district in both coastal and western areas. While these very useful rains were followed by rather light and sporadic falls along the coast, excellent rains occurred in the West, where the prolonged drought was definitely broken by torrential flood rains in January.

Further summer and autumn rains have brought about a considerable improvement in pasture, although along the coastal belt the rainfall was insufficient in many places to replenish surface water.

From an agricultural viewpoint, the rainfall generally was too irregular for successful agricultural crop production.

Rainfall table for the districts of Rockhampton, Callide and Miriam Vale:—

Month.	Rockhampton.		Callide.		Miriam Vale.	
	Points.	Wet days.	Points.	Wet days.	Points.	Wet days.
July	428	4	360	6	1,012	..
August	52	6	198	5	127	..
September	142	7	198	7	332	9
October	74	5	208	2	164	5
November	7	1	53	2	26	1
December	585	10	350	9	568	9
January	598	11	918	20	926	11
February	469	10	294	7	258	12
March	510	19	454	8	680	11
April	20	3	6	1	71	3
May	106	10	191	6	..	..
June	..	..	..	..	..	..
Totals	2,991	86	3,220	73	4,164	61

Tobacco.

Tobacco growing has been confined practically to two areas—viz., Miriam Vale and Bundaberg; the acreage planted being Miriam Vale 78, and Bundaberg 26. Pursuing the general practice of planting early following the October and November storms, this policy again proved successful. While heavy torrential rains were falling north of Rockhampton, seriously restricting tobacco operations, the Central Division experienced light to very light showery weather, ensuring satisfactory planting and growing conditions.

Unfortunately, a dry period through February had a tendency to ripen crops prematurely. Subsequently, showery conditions throughout March checked further deterioration and resulted in heavy yields of heavy-bodied bright tobacco. The season's production is estimated to be the best produced in this area since the commencement of tobacco growing.

While the average yield is estimated at 700 lb. per acre, individual yields exceeded 1,000 lb. per acre. Undoubtedly these yields would have been higher but for the unfortunate loss of a considerable quantity of leaf, owing to insufficient barn capacity to accommodate the crop.

Top market price was obtained for several lots of Miriam Vale leaf, while the high average obtained throughout this year's tobacco sales in Brisbane was indicative of the quality of the leaf.

While the Bundaberg area has not been quite so fortunate as Miriam Vale, the quality of the leaf harvested this season compares more than favourably with previous years.

It is anticipated that there will be a steady increase of acreage of tobacco planted at both Miriam Vale and Bundaberg next season, following very satisfactory crop returns at these centres.

Blue Mould.—Blue mould made its appearance in seed beds at both Miriam Vale and Bundaberg, while seed beds at Rockhampton were quite free. Conditions prevailing during seed bed operations were generally hot and dry and inconducive to the rapid development of mould and depreciation due to it was fortunately only of a minor nature.

Seed Beds.—At Miriam Vale the rule is to grow tobacco seedlings in open beds—a method which, so far, has been quite successful. With an increasing number of tobacco growers, the prevalence of insect pests will become wider and the necessity of covering the beds will become apparent.

The control of blue mould by benzol also necessitates modifying the type of seed bed generally used, and a covering of some description becomes inevitable.

Field, Cultural, Curing and Handling Operations.—It is pleasing to observe the generally good methods obtaining in the preparation of land and cultural methods employed in the tobacco crops.

The best results from curing were not possible, owing to insufficient barn capacity making it imperative to overfill the barns. In the circumstances, however, the curing has been remarkably good.

Home grading of leaf has been carried out in several instances, although the lack of grading facilities, labour, and time prevented a greater quantity of leaf being graded on the farm. Prices realised for home graded leaf compare more than favourably with that graded in Brisbane, and indicate the very satisfactory methods employed in the handling of the leaf.

Tobacco investigational work consisted of seed selection trials, Rockhampton; seed propagation at Bajool, Archer, and Nerimbera; fertilizer trials at Miriam Vale; varietal trials at Miriam Vale and Bundaberg; green manurial trials at Miriam Vale; and exploratory trials in the Central District.

Seed Propagation.—Three seed increase plots were established in the pure seed areas of Bajool, Archer, and Nerimbera, the varieties being, respectively, Yellow Pryor, Cash, and Hickory Pryor. Plants for these plots were from seedlings raised in Rockhampton and distributed to selected farmers having irrigation facilities.

While the quantity of seed obtained from each variety is regarded as satisfactory, the crop at Bajool suffered continuously from stem grub attack, and was checked latterly by nematode infestation. The Cash variety was somewhat retarded in growth in the early stages by the dry season, and the tardiness in bringing the irrigation system into operation.

Seed Selection.—The ten principal varieties of tobacco grown in Queensland were planted on the Range from plants raised in Rockhampton. During the growing period, it was necessary to apply two top dressings and water continuously to bring the plot through in normal growth. The varieties were Gold Dollar, Gold Leaf, Jamaica, Warne, Cash, Hickory Pryor, Yellow Pryor, Bonanza, Conqueror, and Yellow Orinoco.

Each variety was duly hooded and selections were made subsequently from each variety, according to the descriptions by Macrae and Haslam, for further propagation.

Varietal Trials.—Further varietal trials were conducted to ascertain the most suitable varieties for the varying conditions existing in Central Queensland, particulars of which have already been submitted. It is of interest to note that while Cash is recognised as a rather light type of leaf, the yield per acre was greater than the other nine varieties in the trial under this season's conditions. The varieties under trial were Gold Leaf, Conqueror, Gold Dollar, Warne, Bonanza, Yellow Pryor, Jamaica, and Yellow Orinoco.

Fertilizer Trials.—Two trials were conducted at Miriam Vale to ascertain the effect on the leaf of varying quantities of nitrogen in the form of nitrate of soda and dried blood, combined with a flat rate application of sulphate of potash and superphosphate. The results of these have already been recorded.

Tobacco Exploratory Trials.—Numerous trials were arranged, principally between Bundaberg, Miriam Vale, Mount Perry, Monto, and Theodore. Heat wave conditions following the distribution of plants caused heavy losses and bad strikes. Several centres, however, proved promising—notably Elliott River, Boolboonda, and Theodore. However, further trials will be necessary before definite conclusions can be formed.

Tobacco Trials, Barcaldine.—Tobacco trial plots were laid down at Barcaldine in three different localities. While two areas proved unsuitable, sufficiently encouraging results were obtained at one to justify further trials on a commercial scale, for which arrangements have already been made.

SORGHUMS.

The climatic conditions in Central Queensland are essentially unsuitable for maize production. It is realised that the free grain-setting of sorghums under adverse conditions, their drought-resistant qualities, their bulk of useful stalk roughage, and the nutritional value of the grain, all combine to establish this crop as suited admirably to local conditions.

The value of heavy-seeding dwarf varieties capable of being harvested by machinery in the western areas, where fodder is successfully grown, is of considerable importance for storage for sheep feed.

A further increase of Italian sorghum by the distribution of seed retained from a plot established at Pink Lily is recorded, and seed from the various plots is being secured for further propagation.

Sorghum Seed Selection.—Some twenty varieties of dwarf sorghum were planted, and the whole of which were hooded. Selections from each variety were made to increase the most promising varieties. Selections from the sorghum trial at the Biloela State Farm were also made—Dwarf Pink, Kalo Kalo, Hegari being the most promising.

PEANUTS.

The Peanut industry in Central Queensland is increasing steadily each year, with the Southern market extending, as well as that in the West and North, where a considerable portion of the crop is disposed of.

Sufficient seed was distributed through the Central Queensland Peanut Board, Rockhampton, to plant 450 acres; while it is estimated that an additional 100 acres were planted from seed obtained from other sources. Virginia Bunch accounts for approximately 95 per cent. of the nuts planted; while Spanish Red represents the balance.

The principal districts comprising peanut-growing areas are widely distributed, as may be gathered from the following list:—Yeppoon, Milman, The Caves, Dululu, Wowan, Jambin, Mount Larcom, Dalma Scrub, and Stanwell.

It is anticipated that with the increasing demand for peanuts, the acreage will extend steadily during the next few years.

BROOM MILLET.

While the extent of broom millet cultivated in the Central District is limited, the crop produced was fairly satisfactory under the somewhat adverse climatic conditions. A varietal trial was conducted at Biloela. Three varieties were planted—Dwarf Marlborough, Black Spanish, and White Italian in mid-February, following good rains. White Italian proved undoubtedly superior, producing a good yield of long straight brush. Dwarf Marlborough which gave promise last year was disappointing, producing a short panicled brush of low commercial value. Black Spanish was of medium length and the resultant yield is not encouraging, lacking elasticity and being dark in colour. Harvesting has not been completed.

English Potatoes.

Following excellent late winter rains there was an increased planting of the early crop. Crops were fairly successful, but were affected seriously by potato moth attack. Yields of from 1½ to 2 tons were obtained. The main summer planting, however, was somewhat reduced due to an unfavourable season. Successful crops were produced in the Boyne Valley and Scrubby Creek areas, where yields from 2 to 4 tons per acre were harvested. Elsewhere in the Callide Valley heavy rain immediately following planting caused poor germination and this, together with long dry spells, militated greatly against successful crop productions. The acreage for the late planted crop represents approximately 200 acres.

Sweet Potatoes.

This crop apparently attained considerable importance in the Central district a few years ago, but at present it is of small economic importance, outside local market gardens. Some varieties have been collected recently and are being propagated for distribution next season.

Pannas.

The propagation of these yams has been very disappointing. Observations show there is but slight inclination to tuber development after eight months' growth.

Oat Trials.

Oat trials were arranged last season, but were located, unfortunately, on an unsuitable type of water-logged soil. Growth was very unsatisfactory. Further trials are being conducted this year at Alton Downs and in the Theodore area.

Fodder Trials.

Due to the late summer rains, these plots were not planted until late February and then they were checked severely by the packing of the surface soil, thus retarding seriously normal growth.

Ensilage Demonstration Trial.

Owing to lack of sufficient summer rains this plot was not planted. The general tendency in the Central district is to neglect the very essential precautions of providing for adverse climatic conditions. This, therefore, becomes a most important factor and further trials will be continued from year to year. It is interesting to observe a certain amount of keen interest in fodder conservation in the western areas. Excellent crops of wheat, Sudan grass, and sorghum have been produced by utilising the surplus bore water for irrigating limited areas. Resultant crops are being conserved in pit silos and results so far are very encouraging.

Maize.

Early planted crops showed excellent promise, but through the continued dry conditions towards the end of the year these crops failed completely. Poor results also attended the later crop, due to the long periods of dry weather.

Wheat.

Under favourable conditions, excellent crops of wheat have been produced in Central Queensland; unfortunately, the limiting factor is the erratic winter rainfall. During the past season, although the usual planting period is regarded as being around May and June, planting rains did not fall until mid-July. Conditions during August, September, and October were most favourable, when crops from 30 to 36 bushels per acre were harvested in the Theodore and Callide Valley areas. Under these favourable conditions, increased acreage was planted, the total area being approximately 900 acres; distributed as follows:—Theodore 600 acres, Biloela 200 acres, Dululu 130 acres.

Some 24 varieties, which had shown promise in previous years, were planted in 1-chain long rows at Theodore. The most promising crosses —CCC 2701, CCC 2705, P x CCC 3209, and SE x CCC 3212—will be planted again in seed increase areas, while bulk plantings will be continued with Sea Spray, Florence, Pusa, Clarendon, Three Seas, Sea Foam, and Bo x F x G 2627.

Pasture Improvement Plots.

During the current season the pasture improvement plot at Gracemere was transferred to Pink Lily for convenience. The following grasses have been established:—*Digitaria pentzii, Digitaria valida, Digitaria P. kuruman, Digitaria P. inkruip, Panicum coloratum, Panicum maximum, Setaria aurea, Urochla pululans, Dichantium nodosus, Andropogon distachys, Panicum mutica, and Urochla bulbodes.*

The grass plot was extended further by the planting of additional winter grass, following opportune rains early in June, the following being planted:—*Chloris distichophylla, Phalaris tuberosa, Ischacum sulcatum, Bromus marginatus*, Wimmera rye grass (early, mid, and late), Italian rye grass, lucerne, and sheep's burnet.

Additional grasses are being propagated for inclusion in plots in the spring, namely:—*Digitaria eriantha, Digitaria milanjiana, Urochla trichopos, Branchiaria decumbens, Cenchrus ciliaris, Amphilophis glabra, Eragostis tenuifolia, and Cynoden plectostachyum.*

Two additional grass improvement plots have been established at Theodore and Monto respectively, and further plots will be established in various centres along the coastal areas.

Spartina Townsendii grass has been established at Gladstone, but its progress has been hampered by continuous attacks by small crabs; other sites are being tested in different portions of the mud flats.

Cotton.

The season opened with excellent prospects of a record crop, but in some localities the erratic spring rains militated against good germination of seed during October and November. This necessitated replanting later in the year, but owing to severe insect attack these crops were considerably depleted.

NORTHERN DIVISION.

Mr. O. L. Hassell, Senior Instructor (Townsville) reports:—

The first six months of the period under review were extremely dry. In contrast, the second half of the term proved to be one of the wettest for many years, 58 inches of rain having fallen since January.

At the present this Division is enjoying one of the best seasons on record, and there is an abundance of grass and water from the coast to the far-western pastoral areas.

Rainfall in Townsville from July, 1935, to June, 1936:—

Rainfall in Townsville from July, 1935, to June, 1936.

1935.	Wet Days.	Rainfall.	1936.	Wet Days.	Rainfall.
		Points.			Points.
July	3	103	January	14	853
August	Nil	Nil	February	13	3,250
September	Nil	Nil	March	16	1,256
October	3	27	April	3	189
November	1	11	May	3	47
December	4	39	June	5	200
			July	1	27

The likely supply of cattle to the meatworks this season in the Townsville district is estimated by the District Stock Inspector as follows:—

Alligator Creek, Oolbun, 38,000; Ross River, Townsville, 37,000

Experimental Work.

Experimental work included two fertilizer and one green manurial trial with tobacco; two summer and one winter green feed plot; two trials with crossbred cowpea varieties; one plough cultivation crop with tobacco; two lucerne trials with and without inoculated seed.

Dairying.

For most of the year dairy farmers in the vicinty of Townsville had a very lean time. The two butter factories—one at Ingham and the other at Silkwood—being situated in the heavy rainfall region, have maintained their normal rate of output, however.

During the very dry period a large proportion of the Townsville milk supply was obtained from these two factories, at which only the surplus was separated and made into butter, it being found more profitable to sell the milk.

A substantial development is taking place on the newly selected lands at Clump Point and El Arish. Large areas of scrub have been felled, and it is the intention of the new settlers to commence dairying as soon as their holdings are sufficiently grassed.

Tobacco.

The year proved an exceptionally trying one for the tobacco-grower, as the usual months for planting out the early crop (November and December) yielded only 72 points of rain. Where irrigation was practised, the partially grown crop was swamped in a deluge of rain between January and March. Crops unaffected with root rot were attacked by *Cercospora* leaf spot. At Woodstock the growers had seed-beds ready for a late planting, and planted out in the field during the latter end of March and early in April after the cessation of the heavy rains. From these plantings some very good quality leaf is at present being harvested. The result of this enterprise has given quite a fillip to the tobacco-growing industry in this area, and from present indications double the area will be placed under crop next season at Woodstock if the season is suitable.

With the exception of *Cercospora* leaf spot, very little disease has been met with in the present crop. Blue mould was not noticed at all, either in the seed-beds or in the field. Farmers have been encouraged to use the colloidal copper spray as a prevention against blue mould. In the early part of the season demonstrations in mixing the spray and applying it were given to the farmers in the different districts. The demonstrations were well attended. The value of this spray is well recognised now by the tobacco-growers in North Queensland. At Woodstock a grower this season sprayed his tobacco seed-beds with colloidal copper spray regularly, and left approximately 12 square feet unsprayed at the end of one bed. Although blue mould did not appear in any of the beds, the unsprayed portion became a mass of *Cercospora* leaf spot, while the sprayed portion remained quite free from disease.

Fertilizer Trials.—Two fertilizer and one green manurial trials were laid down at Woodstock. The plots were carried out on the Latin square system.

Each treatment was repeated five times, being shown on the chart as N, 2N, 3N, 4N, **3NA.**

2N	3NA	4N	N	3N
N	4N	3NA	3N	2N
3N	N	2N	4N	3NA
4N	2N	3N	3NA	N
3NA	3N	N	2N	4N

The treatments applied were:—

Nitrogen per Acre.

N—
Dried blood, 40 lb. per acre = 5 lb. N
Nitrate of soda, 32 lb. per acre = 5 lb. N
= 10 lb.
2N—
Twice the quantities set out in N = 20 lb.
3N—
Three times the quantities set out in N = 30 lb.
4N—
Four times the quantities set out in N = 40 lb.
3NA—
Dried blood at 120 lb. per acre = 30 lb.
Sulphate of ammonia at 75 lb. per acre

In addition, all plots received in the mixture supplied—

P_2O_5.
Phosphoric acid, as 400 lb. superphosphate per acre = 80 lb.
Potash, as 73 lb. per acre of sulphate of potash = 35 lb.

At the time of writing they are at the harvesting stage, and in both cases excellent growth has been made. It is anticipated that the plots will yield 350 lb. and 600 lb. of cured leaf from each half-acre.

A green manurial trial was laid out on a 5 by 4 Latin square system of replication. The treatments were as follows:—No. 1, tobacco; No. 2, fallow; No. 3, Poona cowpea; No. 4, peanuts; No. 5 Sudan grass.

Layout of the plot:—

Tobacco	Fallow	Tobacco	Poona Cowpea
Peanuts	Poona Cowpea	Fallow	Sudan Grass
Poona Cowpea	Sudan Grass	Poona Cowpea	Peanuts
Sudan Grass	Peanuts	Sudan Grass	Fallow
Fallow	Tobacco	Peanuts	Tobacco

Considerable time and work were spent in making this plot a success. The chief trouble occurred early in the season, when some of the plots had to be replanted four times on account of the excessively dry weather then existing. With the advent of the wet season conditions improved vastly. The plots may be regarded as a success, for all have shown very fair growth, and sufficient moisture remains in the ground to aid in decomposition of the green manures after being ploughed under.

PASTURE IMPROVEMENT.

The subsidised grass variety plot at Woodstock has been of exceptional value during the past six months, for since the coming of the rains there has been a big demand from farmers for rootlets of the several varieties, and supplies have been distributed very widely. From observation of the plots put out several years ago on the coastal areas, the most suitable of the varieties under trial are *Panicum coloratum*, *Panicum maximum* (fine-stemmed Guinea grass), and *Digitaria eriantha* (woolly finger).

The varieties in the Woodstock plot are *Panicum coloratum*, *Panicum maximum*, *Uruchloa pullulans*, *Urochloa trichopus*, *Panicum antidotale*, *Setaire aurea*, *Eragrostis cervula*, *Andropogan distachys*, *Digitaria eriantha*, *Digitaria pentzii*, *Digitaria polevanzii* (Kuriman strain), *Digitaria polevanzii* (Inkrup strain), and *Digitaria valida*. To the end of December, 1935, this plot had experienced a very dry time, and for the 22 months prior to December only 15·33 inches of rain were recorded in Townsville. During this dry period most of the varieties remained dormant, with the exception of *Panicum antidotale* (blue panic grass), *Digitaria eriantha* (woolly finger), and *Panicum coloratum*, the firstnamed being the most drought-resistant of all. Unfortunately, with the exception of several small stools, this variety died out during the heavy rains in February. These stools have since been broken up, and another plot planted.

SUMMER GREEN FEEDS.

To assist dairy farmers, two plots have been established comprising cow cane, white panicum, and the following varieties of sorghum:—Day Milo, Italian sorghum, Club Kaffir, and Planters' Friend. The sorghum plots failed, for repeated plantings showed the ground to be a mass of barren patches, in which the plants died out soon after germination. The white panicum yielded at the rate of 2½ tons per acre, after being grazed down once from a height of 18 inches and then allowed to go to seed.

Cowpea Trials.—Further experiments were conducted at Silkwood and Woodstock with the crossbred cowpea varieties raised at Roma. The plot at Silkwood died from excessively wet soil conditions—the result of the heavy March rains. The plot at Woodstock was planted on the 9th April, at the end of the wet season. An excellent growth was obtained from all varieties, which are now flowering heavily, and seed-heads are beginning to form. From the present condition of this plot it appears that sufficient seed will be secured for distribution to the farmers next season. The following varieties were planted:—Snake x Poonah Sel. 1; Large White x Skewbald; Large White Skewbald x Poonah Sel. 3; Large White x Skewbald Sel. 1; Large White x Skewbald x Poonah Sel. 1; Large White x Skewbald Sel. 2; New Era x Poonah x Mammoth Sel. 1; Large White x Poonah x Skewbald Sel. 2; Large White x Skewbald x Poonah Sel. 3.

During the past two months these varieties have proved to be fairly resistant to nematode attack, and should be in great demand by the tobacco-growers once they realise their value.

CULTIVATION TRIAL.

A plough cultivation experiment with tobacco was carried out at Woodstock. The first cultivation was made when the plants were about 2 inches high, and the second when the plants were 6 to 8 inches high. The first deep cultivation against the plants was done on the 23rd March, when the ground had just dried after a very heavy fall of rain. The deep cultivation against the plants was done with a prong plough after the mouldboard had been removed. The ridge thus broken down was thrown back against the plants after having again attached the mouldboards, and the centres were cleaned out with the cultivator.

The second cultivation was worked on the 20th April, and in this working the ridges were broken down with the prong plough, without removing the mouldboard, by ploughing away two furrows on either side of the plants and throwing back again immediately and cleaning the centres out with the scarifier.

When the plants were about 2 feet high after the second cultivation a remarkable difference was noticed between the experimental rows and the control rows alongside, the former being taller and more robust on an average throughout. At the present time (commencement of harvesting) little difference, if any, between the control and plough cultivation experimental rows can be noticed in the crop. This is, no doubt, due to the fact that the farmer carrying out the experiment, realising the good that had been done by the plough cultivation, especially on a soil that had received a deluge of approximately 50 inches over a period of about ten weeks, set to work and applied much the same method of cultivation over the whole paddock by a very deep cultivation with the peg teeth of the cultivator and cleaning out the centre with the same implement. This ruined our trial, the method of which is described fully in the *Agricultural Journal* of June. The leaf picked on the farm on which the plough cultivation trial was carried out was among the best produced in the Woodstock area this season. This method of cultivation should prove to be of immense value to tobacco-growers, especially following heavy falls of rain on most types of soil.

Lucerne Exploratory Trial.

Two lucerne trials are being laid down—one at Cardwell and one at Silkwood; half of each area to be planted with inoculated and half with uninoculated seed. Across the whole plot, divided into four sections, the following applications of lime and fertilizer will be made:—(1) Superphosphate 2 cwt. and lime 1 ton per acre; (2) lime at 1 ton per acre; (3) no fertilizer; (4) superphosphate 2 cwt. per acre.

Winter Pasture and Cereal Trial.

One trial is about to be laid down at Cardwell. The cereals and grasses to be used are Florence wheat, Algerian oats, Cape barley, black winter rye, prairie grass, Wimmera rye, Italian rye, *Phalaris tuberosa,* berseem clover, wild white clover, red clover, and lucerne.

Blue Mould in Tobacco.

Arrangements have been made for field experiments for the control of blue mould in tobacco.

Potatoes.

Approximately 250 acres have been placed under English potatoes in the Townsville district. In this district potatoes are grown in winter. The strike generally was somewhat erratic, owing to a dry spell at planting time in autumn. Nevertheless, good yields are anticipated, as good rains have since fallen.

It is too early yet to give a reliable estimate of the crop for the different districts. The Ingham crop at present is showing great promise. The crop will be harvested during the latter end of August and early September.

Other Crops.

Tomatoes.—The area under crop has been increased considerably. Most of the tobacco-growers plant tomatoes as a side-line. Harvesting of the Woodstock crop has commenced, and is being sold on the Townsville and Brisbane markets at prices ranging from 1s. 6d. to 3s. Better prices are anticipated in July and early August.

Pumpkins.—Owing to the heavy summer downpour, this crop was very light. The Townsville market absorbed supplies at prices ranging from £3 to £6 a ton.

Broom Millet.—A small area of broom millet was grown at Manton, on which a very good quality of hurl was produced.

Besides sugar-cane and vegetables, no other agricultural crops of much importance are produced in the Townsville district.

Mr. A. Hamilton, Instructor in Agriculture (Mareeba), reports:—

Tobacco.

From July until mid-January was an abnormally dry period. Some localities, however, had the benefit of storms late in November and during December, resulting in a rapid growth of tobacco crops, which ripened quickly and evenly and produced good bodied, good textured, and very bright leaf.

Although late summer was very wet, crops suffered little damage. Where damage did occur it was on the poorly drained, grey sandy soils.

The season generally was a good growing one and almost all crops responded well. The tobacco crops particularly matured quickly and ripened more evenly than in past seasons. Early planted crops (late November and early December), although reaching maturity during the heaviest part of the wet season continued to ripen normally. Even when harvested during rainy weather they produced excellent results. Quite the most noticeable feature of this season's production was the almost universal brightness of the leaf picked from all areas and soil types, a much lower percentage of dark leaf being produced than in previous seasons. Much of the bright leaf, particularly from the grey sandy soils, was, however, extremely light in body; and much of it papery with lugs badly blemished by blue mould spots, cercospera, and physical injuries.

One other feature seldom met with in tobacco-growing areas in this district was the way in which some crops showed a distinct lightness in colour after "topping," so much so that at a distance they appeared to be ripe from the bottom to the top of the plant. In those crops in which this condition occurred, normal harvestings were carried on with no excessive ripening or rotting of the leaf. The cured leaf from these crops was particularly bright and of good texture. Perhaps the only loss that did happen during harvesting, and then for only a very short period, was due to insufficient barn space; but, although there was much overcrowding of barns very little serious damage resulted.

At least two crops cured out almost wholly black with a very small percentage of bright leaf. Both were typical of much of the leaf produced during the disastrous season of 1932-33. They were planted with Hickory Pryor, and although in both cases variety was held responsible for the trouble there does not appear to be any evidence to support this theory. A more likely theory is that there was some physical defect in the two soil types on which the crops were grown, and which under the wet conditions prevailing acted adversely on the crops, and that as soon as a degree of temperature was reached in the curing process a total collapse took place in the leaf tissues and the resultant cures were black papery leaf.

IRRIGATED CROPS.

The stage has now been reached in tobacco production in this district at which two quite distinct plantings are made—namely, the irrigated and the non-irrigated crops.

The irrigated crops are confined naturally to areas adjacent to a suitable water supply, mainly Emerald Creek and Barron River. Due principally to one or two particularly good returns recorded during the previous season (1934-35), the acreage planted under irrigation this season aggregated approximately 120 acres, the biggest proportion of which was located on Emerald Creek. In the previous season (1934-35) very early plantings were made (August), and with the advent of early storms the crops made phenominal growth and yielded very heavily. This season the same practice was followed by many growers, but with the absence of early storms almost continuous waterings had to be applied to the crops, which up to a point responded well. From that point onwards very slow growth was maintained. Premature ripening occurred in some crops, and insect attack—especially leaf miner, stem borer, and the cluster caterpillar—were most severe at the period when plant growth had apparently ceased. However, storms in December made a marked difference to these crops and they responded well. The main lesson that has been learned by the growers concerned is that a crop to be irrigated can be planted too early. The tendency now is to plant closer to the storm period, when less watering will be necessary and costs of production will consequently be decreased.

Irrigation means to some growers, however, that water will do everything with the result—observed several times during the past season—that if a crop does not appear to be making satisfactory progress one or two things are necessary to rectify the lag—namely, more water or more fertilizer, or both. In these cases such a question as cultivation of the crop rarely arises. Crops under constant and thorough cultivation, as well as irrigation, demonstrate strikingly the benefits of good farming. One other factor which has a bearing on the success of an irrigated crop is the area that can be worked successfully and economically. The amount of labour necessary to produce a crop under irrigation restricts the area in comparison with that which may be worked under normal rainfall conditions. To attempt to cultivate too large an area under irrigation without allowing for this difference is to court trouble. As with the non-irrigated crops, it is quite a simple matter with available seedlings and labour to plant a large area, but the attention the crop requires from the time of planting onwards cannot possibly be given as readily as that required for the mere planting operation. A smaller area well managed will give returns as good or better at less cost than the larger area indifferently farmed.

It is anticipated that the irrigated tobacco acreage will be doubled in the coming season.

In the Emerald Creek area increased acreage and more pumping plants drawing on the available supply may result in a water shortage, if conditions remain dry for any lengthy period. There is one other factor which may seriously curtail future plantings in this area unless crop rotation is practised, and that is an increasing acreage which is becoming nematode-infested. Mosaic has also made its appearance in a few crops. Of the non-irrigated crops those planted early (December) made excellent growth and produced perhaps the best all-round quality leaf yet grown in the district. With the exception of a dry period from late January to mid-February, which checked growth, conditions were generally good. Crops matured and ripened quickly and evenly, with the result that in very many of them a good bright colour was maintained from lugs to fillers—a condition seldom experienced in this district in previous seasons. Notwithstanding the many advantages of irrigation, these non-irrigated crops—notably in the Paddy's Green area—showed superior growth at almost every stage. This, however, cannot be said of the crops in other sections. Crops planted late in January showed poor growth and leaf development and were slow in ripening, the cured product being harsh and leathery and of indifferent colour. That condition is usual, however, with crops planted at that time of the year in this district.

It becomes more apparent every season that there is a definite period at which maximum plant growth takes place. This period varies according to the seasons, but it occurs generally between the latter end of the storm period and the early portion of the wet season—roughly, from early December to mid-January. This condition is most marked where a crop is established at the beginning of the wet season. Little growth may be made during the wet period, but afterwards the plants make rapid growth. On the other hand, crops planted out during the summer rains invariably fail to become established. If they do become established they fail to make the progress apparent in the earlier established crops. Refertilizing the later planted crop usually fails to make any marked impression, unless it is in the form of a thickening of the leaf without any appreciable increase in size. The earlier planted crops have, seemingly, an appeal to the manufacturers which the later planted crops lack, for in this district the early planted crops have never yet failed to command the highest prices.

OTHER CROPS.

Considerably more attention is now being given to the growing of other crops, particularly peanuts and cowpeas, while small acreages of cotton, maize, English potatoes, Sudan grass, and vegetables are being tried.

The peanut crop was satisfactory, showing well-developed pods of good colour, with a very low percentage of "pop." Yields of a ton and upwards per acre have been bagged. Whether harvested or turned under as green manure, peanuts make a good rotational crop with tobacco, which appears to respond on peanut land to a marked degree.

Most of the older tobacco lands are sorely in need of crop rotation. One impressive example of the value of peanuts in rotation practice was demonstrated at Chewko on poor grey sandy soil. Last year, approximately two-thirds of the field was planted with peanuts, and this year the whole area was planted with tobacco. Without appreciable variation in time of planting and fertilizer applied, the tobacco following peanuts could be picked out immediately and practically to the last row. The balance of the area on weed fallow failed. This example was the more striking, in that only very light crops of peanuts are the rule on the grey sandy soils of the Chewko area.

The cowpea crop generally has proved to be a fairly heavy one, although slight losses did occur during the abnormal rainfall in June. The giant white variety is the one most favoured, as it is in demand for planting in the sugar-cane areas. With an average price ruling at from 25s. to 30s. per bushel, good returns should be assured. When the fields under cowpea revert to tobacco production considerable improvement in leaf yield should result, especially if correct fertilizer treatment is given.

Seasonal conditions did not favour the cotton crop, and only poor returns were obtained. The maize crop was also poor.

EXPERIMENTAL WORK.

Experimental work during the year consisted of five Latin square fertilizer trial plots, of which only three were harvested.

Two Latin square green manurial trials were planted and, due principally to the dry period experienced from mid-January to February, unsatisfactory growth was made by the various crops. From this period onwards, however, the crops made good growth, but through continuous wet weather the necessary ploughing under of the crops could not be accomplished until late in April.

Early in the season seed of nematode-resistant varieties of cowpeas—selection 1 (Large White x Skewbald) and selection 3 (Large White Poona x Skewbald)—were distributed in quantity sufficient to plant about seven acres in drills. Through adverse seasonal conditions, the results in most cases were poor.

Two experimental areas of *Crotolaria juncea* (sunn hemp) were planted. One showed excellent growth, averaging from 5 ft. to 5 ft. 6 in. in height with a good spread of branches. Sufficient seed should be available for further trials next season.

Rootlets of introduced grasses were distributed, including the *Digitarias*, *Polvansii*, *Valida*, *Pentzii*, *Eriantha*, and *Panicum coloratum*. Trial plots of these grasses on the Daintree River have spread well under grazing conditions. At Mossman, although still in the plot stage, these grasses show distinct promise.

COMPARATIVE RAINFALL RECORDS.
MAREEBA DISTRICT.

1935.

Month.	Rain.	Wet Days.
	Points.	
January	373	8
February	502	7
March	855	10
April	49	5
May	271	5
June	5	1
July	0	0
August	3	1
September	1	1
October	22	3
November	82	4
December	49	5
Total	2,212	

1936.

Month.	Rain.	Wet Days.
	Points.	
January	562	11
February	1,219	14
March	1,203	15
April	116	6
May	16	7
June	374	12
Total	3,490	

Mr. Thomas G. Graham, Instructor in Agriculture (Dimbulah) reports:—

TOBACCO.

Practically no early storms were recorded for November or December. Good rains fell in early January, which continued for some days, and provided the right conditions for tobacco planting. Later, further good rain fell, increasing gradually to a very wet period during March. Plant growth was, consequently, retarded to such an extent as to increase the liability of disease and insect attack. Most of the tobacco in this area was planted on well-drained soil, and this factor contributed largely to the good quality of tobacco produced, even under such wet conditions.

Some of the earlier leaf cured was not of the best, due to a too rapid development of plant tissue, which results usually in brown-leaf formation.

Crops planted on the sandy types of soil have, generally, given better results than those planted on the alluvials, although in some instances alluvial soils have given wonderful results, both as to colour and yield.

SEED BEDS.

Seed-bed plantings commenced in early October and continued onwards.

Colloidal copper, when applied with care, gave a satisfactory check to blue mould, although this year mould has not been as severe as in other years.

DISEASE.

Mould, as has been mentioned already, was active in the area, although not excessively so.

Frog-eye made its appearance about half-way through the curing, and in some instances was particularly severe. In such cases it remained and gradually became worse as harvesting advanced. The ripening, retarded by the weather conditions, was not sufficiently fast to keep ahead of the disease.

Mosaic was more prevalent this year than in past seasons. Many instances were traced from the planting out of infected seedlings. It consequently spread through indiscriminate topping and suckering.

INSECT PESTS.

Stem borer seems to increase in severity with each season, although plants getting away quickly in the field, and good conditions following cutting back, have given them a better chance against infestation than formerly. Irregular fields greatly depreciate yields, and in such cases where cutting back has had to be practised quality, too, must be impaired. Leaf miner has not been troublesome. Leaf-eating grubs (caterpillars) have played havoc with some areas, especially the cluster caterpillar, which became active when harvesting was in full swing. Baiting has been practised freely with marked success, but when plants have been topped the only remedy seems to be to pick the grubs off by hand.

QUALITY.

The quality of the leaf has been particularly good, and for the most part very bright. A pleasing experience of the tobacco season was that most growers seem to have some leaf of quality in their bulks.

ACREAGE AND YIELD.

Statistical data:—

Cured leaf tonnage, 230 tons.

Cropped area, 1,000 acres.

Number of growers, 125.

Varieties under cultivation (areas approximate):—

Warne, 400 acres;

Hickory Pryor, 300 acres;

Bonanza, 140 acres;

Jamaica, 80 acres.

Cash, 60 acres;

Various, 20 acres.

The prices realised at the first sale during the month of May were particularly good.

EXPERIMENTAL WORK.

Good results were obtained on some plots, while others were unsatisfactory. A topping trial was a marked success; likewise the establishment of green manuring crops.

The Sudan grass certified seed area was a complete failure. After a good start, heavy rains retarded growth, and continuous dampness promoted the development of rust. The field did not recover sufficiently and was very uneven. Some of the plants were so badly affected that they failed to produce grain at all.

The cotton trial was also affected badly by the prevailing wet conditions.

Following is a list of the trials made in the course of the year:—

Five fertilizer trials; topping trial; green manurial trial, which included cowpeas, peanuts, Sudan grass, fallow, and tobacco; green manurial trial, which included cowpeas, Japanese millet, crottalaria, fallow (bare), and tobacco; cotton variety trial; Sudan certified seed trial; and benzol treated seed beds.

The physical condition of the soil requires to be improved by the incorporation of organic matter. Ploughing under of green material resistant to tobacco pests and diseases, and valuable from the point of view of erosion, should be continuous and should become the general practice on all tobacco farms. These points were covered in the general instructional programme.

OTHER CROPS.

Few agricultural crops besides tobacco have been produced in this region, although on alluvials various vegetables are grown for farm use. One commercial crop of tomatoes was produced. About fifty acres of peanuts were planted, and yielded, for the most part, sound, clean, well matured nuts. Very little cotton was grown. Several crops of Sudan grass were planted and ploughed under.

The year generally has been a good one, and the main crop—tobacco—a payable one.

Mr. E. R. Ashburn, Instructor in Agriculture (Bowen) reports:—

Weather Conditions.

1st July, 1935 to 31st June, 1936.

Month.	No. of Wet Days.	Rainfall.
		Points.
July	3	34
August	1	5
September	1	68
October	1	5
November	1	37
December	3	37
January	10	815
February	15	1,667
March	13	2,616
April	2	26
May	2	38
June (13)	3	187
11 Months 13 Days	55	5,535

Quarterly Rainfalls.

	Points.	Wet Days.
First—1-7-35 to 30-9-35	107	5
Second—1-10-35 to 31-12-35 ..	79	5
Third—1-1-36 to 31-3-36	5,098	38
Fourth—1-4-36 to 13-6-36	251	7

Apart from the excessive summer rains, weather conditions for eight months out of the twelve have been dry. The rainfall for the first half of the year—186 points—demonstrates the advantages of irrigation, especially to the tobacco-grower.

TOBACCO.

During the period 1st October, 1935 to 31st December, 1935, when only 79 points were registered, tobacco-growers with facilities for irrigation were able to grow very profitable crops and get most of their leaf cured and bulked prior to the commencement of the wet season. Two parcels representative of the leaf grown under irrigation during the dry period realised 30d. for 1,100 and 26d. for 1,000 lb.

Growers without an irrigation plant naturally planted out their crops early in January, and as a result of continuous and excessive rains until the end of March lost heavily. In a few instances growers planted out in early February, and, although these crops suffered through excessive moisture, the returns from them show a vast improvement on the January plants. The best crop—of the Cash variety—in this territory was planted out during the last wet period of March, on new, well-prepared land treated to a top-dressing of super. (about 200 lb. to the acre) and subsequently irrigated. Another good crop was produced on a farm on Pelican Creek, Collinsville, where the rainfall registrations over the wet period aggregated about 22 inches, as against 40 and 50 inches recorded nearer the coast. A parcel of over 900 lb. of leaf from this crop realised an average price of 33d. per lb. at last sales. Provided sufficient water for irrigation could be obtained from Pelican Creek, the prospects for the further advancement of the tobacco-growing industry in that locality are very inviting. The Collinsville climate resembles that of Roma, and is very favourable for the quick growth of crops generally.

Another area adapted to tobacco-leaf production on a small scale is near Mare's Nest Creek.

EXPERIMENTAL WORK—1935-36 SEASON.

Tobacco.—

Tobacco fertilizer trials and tobacco green manurial trials were established on a farm at Inkerman.

As previously reported, the fertilizer trial was rendered useless through excessive rains and wide incidence of insect pests.

The green manurial trials, the results from which will not be available until next season, were satisfactory. Most of the Sudan grass, cowpea, and peanut crops were turned under for the purpose of soil improvement. The portions of this trial allotted for tobacco produced a very limited quantity of leaf. It is safe to anticipate a very marked improvement from the green-manured portions later on. This type of experiment is or should be of great value to the tobacco-grower, who has produced one only good crop from the light sandy soils common to this district. In most instances the soils, when cropped for the first time—when the humus content was plentiful—produced heavy yields of good quality leaf, but because of the subsequent infertility farmers have had to abandon such areas and prepare new fields. It is hoped, therefore, that green manuring, plus a limited quantity of fertilizer, will prove that tobacco can be grown profitably on these cultivations.

Cowpeas.—

To ascertain their nematode resistance, ten crossbreds from Roma State farm, together with the varieties Groit, Black, Clay, and Poonah pea were grown at Inkerman. Although examined at intervals, the root gall did not appear on any of the fourteen varieties, all of which made good growth on poor sandy soil. All exhibited nitrogenous nodules on the root systems, and if the quantity of these bacterial formations acts as a guide to the value of their hosts for soil improvement, then the crosses Large White x Skewbald x Ponah selections 1 and 2 are far superior to the others under trial. In addition to the wealth of bacterial nodules, the two selections just mentioned have other attractive features in erectness of growth, habit, and abundance of foliage. From the plants under trial sufficient seed was saved for further trials. Recently, a second trial of the ten varieties was planted on a highly nematode-infested area.

Sorghums.—

An observation plot of twenty-two varieties was established at Inkerman late in March. Planted under favourable conditions, a fairly good strike of seed resulted, and mid-May, seven weeks after planting, the following notes on the respective varieties were taken:—

No. 1, Western Black Hull Kaffir.—Height, 4 ft., erect., heavily flagged, midrib pronounced and wide, stalk medium, just breaking into ear.

No. 2, Reed.—Height, 3 ft. 6 in., flag broad and coarse, stalk thick, coming into ear.

No. 3, Kalo.—Dwarfish, 3 ft. high, flag fine and drooping, stalk fine to medium, 50 per cent. of ears showing.

No. 4, American Early Red.—Height, 3 ft. 6 in., flag heavy and drooping, stalk thick, even grower, a litle later than Nos. 1, 2, 3.

No. 5, Sharon.—Three feet six inches high, on a par with No. 4, but later.

No. 6, Pot Dawn,—Three feet six inches in height, on par with No. 5.

No. 7, Black Hull Kaffir Cl. 71.—Three feet nine inches high, flag medium, semi-erect, maturity mid-season.

No. 8, Dawn.—Height, 4 ft. 6 in., early sort, flag coarse, stalk thick.

No. 9, Natal.—On a par with Dawn, but of lighter green foliage.

No. 10, Giza 16.—Dwarfish type, thick stalk, coarse flag, drooping, late sort.

No. 11, Giza 4.—Very early, 6 ft. 6 in. high, sparsely flagged, stalk medium, all in ear, very promising sort.

No. 12, Atlas.—Similar type to Giza 4, good sort, but not as early.

No. 13, Petersburg White.—Short, strong grower, heavily flagged, late sort.

No. 14, Day Milo.—Dwarfish, 2 ft. 6 in. high, heavily flagged, fairly early (not attractive).

No. 15, Dwarf Pink.—Three feet six inches high, stalk and flag medium, fairly early (not attractive).

No. 16, Club Milo.—Height, 3 ft. 9 in., stalk stout, flag medium, fairly early.

No. 17, Wheatland Milo.—Dwarfish, 2 ft. high, stout stalk, bunchy sort, not attractive.

No. 18, Standard Milo.—Four feet six inches high, stalk and flag medium, spreading habit of growth, very early, high percentage of goose necks.

Nd. 19, Redfort Haye.—Five feet high, stalk and flag medium, erect grower, early sort, promising.

No. 20, Brown Yolo.—Dwarfish, on a par with Wheatland Milo.

No. 21, Italian Sorghum.—Six feet high, erect, flag and stalk medium, very attractive for fodder purposes.

No. 22, Saccaline.—On par with No. 21.

Later, unfortunately, a cyclonic blow flattened them to the ground.

As usual in this territory, parrots have raided the crops, devouring the maturing seed-heads.

Small quantities of introduced sorghums have been reserved for future plantings, and now that the merits and demerits of the respective varieties are known, an endeavour will be made to grow the apparently better varieties for seed.

Maize.—The excessive summer rains destroyed all prospects of procuring seed from the trial crops grown.

Potato Fertilizer Trial.—Near Inkerman a trial area has been put under potatoes. Present crop prospects are fair.

Pasture Improvement.—From the grass plots established at Merinda last year several lots of roots have been distributed throughout the district, but, owing mainly to the fact that most dairy farmers are not yet in a position to tackle effectively the problem of improving pastures, no immediate material benefit has been derived so far from these demonstration plots.

FODDER CONSERVATION.

Following on the excellent results obtained last season, it is gratifying to note that the practice of fodder conservation is extending. The quantities of ensilage, both in stack and pit, are certainly limited, but the experience gained by the farmers concerned should encourage them and others to greater efforts with this form of insurance against drought and excessive feed bills.

PASTURE IMPROVEMENT.

Mr. C. W. WINDERS, B.Sc., Assistant (Agronomy) reports:—

Trial and Propagation Gardens.—A large number of introduced and native pasture plants are now undergoing a preliminary test in the garden established in 1934 on the training farm at St. Lucia (St. Lucia Farm School), and many others have been either discarded as unsuitable or passed on to other officers for trial in their respective districts. Most of the planting material of the introduced pasture plants under trial has been supplied by the Plant Introduction Section of the Commonwealth Council for Scientific and Industrial Research; a certain quantity has been received also from other sources.

Apart from commercial lines of the important cultivated pasture plants, the introduced grasses and forage legumes which have revealed some degree of usefulness for coastal Queensland conditions—and probably for other areas—during the preliminary testing period are as follows:—

GRASSES.

Amphilophis glabra, ex Rhodesia.
Brachiaria brizantha, ex East Africa.
Brachiaria decumbens, ex East Africa.
Cenchrus biflorus, ex India.
Cenchrus ciliaria, ex India and Africa.
Cynodon plectostachyum, ex East Africa.
Digitaria strains, ex Africa.
Eragrostis superba, ex Africa.
Eragrostis tenuifolia, ex Africa.
Ixophorus unisetus, ex Hawaii.
Panicum maximum, ex Africa.
Phalaris coerulescens, ex Europe.
Urochloa mosambicensis, ex East Africa.
Urochloa pullulans, ex East Africa.

LEGUMES.

Lucerne strains, ex New South Wales.
Stylosanthes guyannensis, ex South America.
Lespedeza species, ex United States of America.

Planting material of many of the above was supplied during the year to interested farmers and graziers, and propagation plots have been established at several centres. It is expected that grazing trials with a few of the species will be commenced in the near future.

Winter Pasture Trials.—A considerable amount of time was given throughout the year to field work in connection with winter pasture trials arranged by the Pasture Improvement Committee and the Experimentation Committee. The trial plots under my supervision are situated in the South Burnett, North Coast, Fassifern, West Moreton, Darling Downs, Granite Belt, and Eastern Maranoa. These trials are providing much information as to the most suitable seed mixtures and fertilizer dressings for winter pastures in Southern Queensland. Such information as is available has been embodied in articles published during the year in the *Queensland Agricultural Journal*.

Mat Grass Control Experiments.—Trials designed with the object of eradicating the narrow-leaved form of mat grass (*Axonopus compressus*), or controlling its spread, were carried out under the supervision of the Pasture Improvement Committee on plots situated at Kin Kin and Cootharaba, both on the near North Coast. Single sprayings with various materials (waste sulphuric acid, sodium chlorate solution, creosote and kerosene, &c.) have killed the aerial parts of the plants, but have not prevented regeneration from underground portions or from seed. The spraying trials will be continued. The effects of various cultural treatments are also being tested.

Top-dressing of Lucerne Fields.—Unfavourable seasonal conditions interfered very seriously with the lucerne top-dressing experiments being carried out by the Pasture Improvement Committee on farms throughout the Southern Division. No definite information has as yet been yielded by the trials.

Reclamation of Mud Flats.—Sets of Rice Grass (*Spartina Townsendii*) were transferred from the City Reach of the Brisbane River to the St. Lucia Reach in 1934. Only a very few tufts now remain, but these are quite healthy. Seeds of the tropical counterpart of Spartina Townsendii—*Spartina brasiliensis*—were obtained from British Guiana, but failed to germinate.

Instructional.—A large number of letters concerning pasture matters was dealt with during the year. In addition, information and advice were given to numerous callers at Head Office. Attention has been given to the Pasture Demonstration Plots of the Pasture Improvement Committee on the Bowen Park grounds of the Royal National Agricultural and Industrial Association of Queensland.

ST. LUCIA FARM TRAINING SCHOOL.

The Supervisor of St. Lucia Farm Training School for Boys, Mr. J. H. Kerr, reports:—

In the course of the year 66 boys went to farms, the majority being placed under the St. Lucia scheme. Four other boys who had completed training were granted scholarships at Queensland Agricultural High School and College.'

No difficulty has been experienced in placing boys on selected farms, and letters received from many of the trainees indicate that they are working under happy conditions and are receiving good treatment from their employers. The number of boys placed by the Training Farm on to farms has now reached 244.

A new cream-house, stables, implement shed, and a hay shed have been completed, the work being done by the trainees under supervision. This completes the necessary farm buildings, which are now centralised on a small eminence some distance from the dormitories. A new railed bull-pen has been constructed and the bull's grazing area has been extended to the river. Most of this work was done by the trainees under supervision.

The area under cultivation totals 33 acres. Practically all of the more important crops for coastal conditions are grown, including maize, sorghum, lucerne, English and sweet potatoes, pumpkins, cowpeas, cotton, arrowroot, Sudan grass, cowcane, mangels, wheat, barley, rye, and field peas. The maize crop has been tanked for future use. A large quantity of bush hay has been conserved in stack.

A slight outbreak of contagious abortion in the dairy herd was checked by blood test and destruction of affected animals, and no further trouble has been experienced. The whole herd was tested in February for tuberculosis with a negative reaction. The milking cows number thirty-two.

Four breeding sows and a Large White boar occupy the piggery.

A considerable addition has been made to the poultry flock, which now includes White Leghorns as well as Australorp.

Four acres of river flats have been brought into cultivation at Moggill, supplementing the chief instruction of timber work and general bushcraft. A new kitchen and dining-room have been erected by the trainees at the camp and formed an interesting part of the instructional programme.

Lectures are given for periods of one hour each Monday, Wednesday, and Friday. Dairying, piggery management, horticulture, and poultry are subjects of lectures delivered regularly by officers of the Department of Agriculture and Stock, while lectures on agriculture are given by the Training Farm staff. Each Tuesday a lecturer from the Queensland Ambulance Brigade gives instruction in first aid.

To the proprietors of the "Courier-Mail," "Telegraph," "Smith's Weekly," "Sunday Mail," and "The Queenslander" a grateful acknowledgment is due for supplying regularly free copies of their publications for the farm library.

The library and radio set provide ample occupation for leisure hours. Tennis, football, and cricket are also played by the students both as practice and competitive games.

The staff includes the supervisor, farm foreman, a leading hand in charge of dairy, cook, and two relief workers to assist in instruction in fencing and other constructional work. At the timber camp at Moggill an instructor is camped permanently.

REPORT OF THE AGRICULTURAL RESEARCH OFFICER.

Conditions throughout the chief wheatgrowing sections of the State were so unfavourable last season for the successful development of this cereal as to result in only half of the usual quantity of grain being garnered.

This huge reduction was brought about through the dry conditions, which, initially, in many instances, prevented a thorough preparation of the land for the reception of seed, delayed germination long past the recognised best sowing period (two months in the Maranoa), and restricted subsequent growth of the crops, which was more or less influenced according to whether they were in well-worked areas or otherwise.

The compensating factors were the comparative absence of rust, excepting in the very late crops; the improvement in the quality of the grain; and the splendid condition in which the bulk of the wheat was harvested.

The departmental activities in connection with winter cereals were confined to the Rose Hill, Allora, Nobby, Kincora, Bongeen, Kingsthorpe, and Roma districts. At Rose Hill, Kincora, Bongeen, and Kingsthorpe wheat observation plots were established; in the Allora district a duplication of the breeding plots, as sown at Roma, was made, while the plot at Nobby was devoted wholly to barley variety trials. The condition of the land at Rose Hill, Kincora, Bongeen, Kingsthorpe, Nobby, and Roma when sown left nothing to be desired; consequently the plots on the whole were not affected very adversely by the trying conditions. Unfortunately, this cannot be said of the plot at Allora, where the more important wheat sowings were made, for, in addition to the rainfall being much lighter there, the land was worked too late in the season to become compacted sufficiently to minimise evaporation, or in a desirable condition for the successful development of wheat plants, which had a very adverse effect upon results.

Details of the sowings made:—

Rose Hill (C. Tilley).—Soil, friable loam, river flat in first-class condition when sown on 7th June. Harvested end November and beginning December.

Kincora (J. E. Wills).—Soil, friable loam in good physical condition and high moisture content when sown in June. Harvested first week in December.

Bongeen (J. Flegler).—Self-mulching black soil in good mechanical condition and carried plenty of moisture when sown in July. Harvested beginning of December.

Roma (State Farm).—Sandy loam carried plenty of conserved moisture and was in splendid physical condition when sown in the first week of July. Harvesting extended from last week in October to last week in November.

Kingsthorpe (C. Brimblecombe).—Soil heavy black soil, in fair mechanical condition and having a fairly high moisture content when sown in July. Harvested in December in second week.

Nobby (W. Franke).—Medium heavy black soil in good condition and fair moisture content when sown in June. Harvested first week in December.

Allora (F. Geitz).—Medium heavy black soil in poor mechanical condition and of low moisture content when sown in July. Harvested in December during second and third weeks.

WHEAT OBSERVATION PLOTS.

Selection.	Rust Observations made Flegler's.	Tilley's.		Flegler's.		Wills'.		Average Yield.
		Quality Grain.	Yield.	Quality Grain.	Yield.	Quality Grain.	Yield.	
Three Seas	Erect, moderately rusty	V.G.	23·0	F.G.	7·5	..	..	15·2
Amby	Erect, badly rusted	S.P.	26·4	V.P.	4·8	..	..	15·6
Bunge No. 1	Fairly erect, badly rusted	V.P.	27·1	V.P.	6·6	..	..	16·8
Baringa	Erect, badly rusted	V.P.	17·8	V.P.	2·4	..	..	10·1
Cedric	Fairly erect, rusted	F.G.	30·2	V.P.	6·6	..	..	18·4
Clarendon	Erect, badly rusted	G.	34·3	V.P.	8·6	..	..	21·4
Currawa	Somewhat lodged, late, badly rusted	V.P.	28·5	V.P.	5·1	..	..	16·8
Dundee	Fairly erect, somewhat late, badly rusted	V.P.	30·5	V.P.	2·1	..	..	16·3
Flora	Erect, badly rusted	G.	34·5	P.	4·5	..	..	19·5
Ford	Slightly lodged, rusted	V.P.	30·2	V.P.	6·1	..	..	18·1
Three Seas	Erect, moderately rusted	V.G.	27·8	F.G.	7·8	..	..	17·8
Gluyas	Slightly lodged, badly rusted	V.P.	18·5	V.P.	2·1	..	..	10·3
Kenya Governor	Slightly lodged, moderately rusted	F.G.	28·1	P.	8·2	..	..	18·1
Kenya C. 6041	Fairly erect, very clean	F.G.	32·6	V.P.	9·6	..	..	21·1
Kenya C. 6042	Erect, very clean	V.P.	22·6	V.P.	13·7	..	..	18·1
Kubanka	Fairly erect, very clean	V.P.	27·8	P.	7·1	..	..	17·4
Lawson	Erect, badly rusted	V.P.	18·9	V.P.	2·7	..	..	10·8
Le Hughenot	Tall, erect, moderately rusted	S.P.	25·4	F.G.	10·3	..	..	17·8
Nabawa	Fairly erect, badly rusted	V.P.	16·8	V.P.	5·1	..	..	10·9
Novo	Fairly erect, badly rusted	S.P.	22·6	V.P.	7·5	..	..	15·0
Three Seas	Somewhat lodged, moderately rusted	V.G.	27·8	F.G.	8·2	..	..	18·0
Nyngan	Somewhat lodged, rusted	G.	30·5	P.	7·6	..	..	19·0
Pacific	Somewhat lodged, moderately rusted	V.G.	24·0	G.	7·1	..	..	15·0
Pusa 4	Somewhat lodged, rusted	F.G.	33·3	F.G.	12·3	..	..	22·8
Red Watchman	Somewhat lodged, rusted	F.G.	24·3	P.	6·8	..	..	15·5
Reward	Fairly erect, rusted	G.	31·2	P.	7·8	..	..	19·5
Three Seas	Erect, moderately rusted	V.G.	25·7	F.G.	9·9	..	..	17·8
Waratah	Fairly erect, badly rusted	P.	26·1	V.P.	7·5	..	..	16·8
Warren	Fairly erect, rusted	V.P.	26·8	V.P.	9·9	..	..	18·3
Warrior	Fairly erect, rusted	P.	22·3	V.P.	6·5	..	..	14·4
Three Seas	Fairly erect, moderately rusted	V.G.	36·0	F.G.	8·2	..	..	22·1
C.C.C. 2614	Somewhat lodged, rusted	V.G.	35·0	G.	8·5	..	..	21·7
C.C.C. 3301	Erect, slightly rusted	V.G.	35·0	G.	8·2	..	..	21·6

WHEAT OBSERVATION PLOTS—*continued.*

Selection.	Rust Observations made Flegler's.	Tilley's.		Fleglers's		Wills'.		Average Yield.
		Quality Grain.	Yield.	Quality Grain.	Yield.	Quality Grain.	Yield.	
C.C.C. 3302	Somewhat lodged, rusted	V.G.	24·7	G.	6·5	..	..	15·6
Flo. x Warren 3302	Somewhat lodged, rusted	G.	31·2	V.P.	6·8	P.	17·1	18·3
Gluyas x Warren 3301	Badly lodged, rusted	G.	35·4	F.G.	11·3	G.	27·8	24·8
Gluyas x Warren 3302	Badly lodged, rusted	F.G.	32·3	F.G.	13·9	F.G.	22·3	22·8
Gluyas x Warren 3305	Badly lodged, moderately rusted	G.	25·0	S.P.	9·6	F.G.	25·0	19·8
Pusa 4 x B.I.P. x M. 3210	Somewhat lodged, moderately rusted	F.G.	37·8	P.	10·3	F.G.	20·6	22·9
Pusa 4 x. C.C.C. 3301	Fairly erect, rusted	G.	31·9	F.G.	13·3	G.	19·9	21·7
Three Seas	Fairly erect, moderately rusted	V.G.	23·0	F.G.	6·8	G.	14·7	14·8
Pusa 4 x C.C.C. 3303	Fairly erect, moderately rusted	G.	32·2	F.G.	15·4	G.	18·2	21·9
Pusa 4 x C.C.C. 3304	Fairly erect, rusted	G.	24·7	G.	13·4	G.	17·8	18·6
P. C.C.C. x S.E. x 3C. 3202	Erect, moderately rusted	G.	35·5	F.G.	11·6	F.G.	16·5	21·2
P. C.C.C. x S.E. x C.C.C. 3203	Fairly erect, moderately rusted	G.	30·2	F.G.	11·6	G.	17·5	19·7
P. C.C.C. x S.E. x C.C.C. 3220	Erect, rusted	G.	25·4	F.G.	10·3	G.	18·2	17·9
P. C.C.C. x S.E. x C.C.C. 3222	Erect, rusted	G.	28·8	F.G.	10·3	G.	15·4	18·1
Pusa 4 x Flora 3202	Fairly erect, moderately rusted	G.	35·4	F.G.	9·3	G.	19·6	21·4
Pusa 4 x Flora 3216	Erect, moderately rusted	V.G.	31·2	F.G.	12·0	G.	22·3	21·8
Pusa 4 x Gluyas 3002	Lodged, fairly clean	G.	27·8	G.	13·0	G.	20·6	20·4
Three Seas	Fairly erect, moderately rusted	G.	28·4	F.G.	8·5	G.	16·3	17·7
Pusa 4 x Gluyas 3301	Fairly erect, rusted	V.G.	34·0	S.P.	11·6	F.G.	17·8	21·4
Pusa 4 x Novo 3016	Erect, rusted	V.G.	37·8	G.	12·5	G.	18·2	22·8
Pusa 4 x Novo 3203	Fairly erect, moderately rusted	G.	41·0	G.	15·1	G.	18·2	24·7
B.I.P. x M. x Flo. 3401	Fairly erect, moderately rusted	V.G.	31·6	G.	7·1	G.	10·6	16·4
B.I.P. x M. x. Flo. 3402	Slightly lodged, badly rusted	G.	29·2	V.P.	6·5	F.G.	11·0	15·5
B.I.P. x M. x Flo. 3403	Erect, rusted	V.G.	35·0	S.P.	9·3	F.G.	16·0	20·1
Flo. x College 1 3401	Lodged, badly rusted	G.	26·1	S.P.	8·2	G.	16·0	16·7
Flo. x College 1 3402	Slightly lodged, badly rusted	G.	28·1	F.G.	8·2	G.	19·9	18·7
Flo. x College 1 3403	Fairly erect, very clean, white grain	F.G.	32·0	S.P.	12·0	F.G.	15·6	18·2
Three Seas	Fairly erect, moderately rusted	G.	28·1	F.G.	9·6	G.	14·7	17·4
Flo. x College 3404	Erect, fairly clean	V.G.	26·8	F.G.	12·3	F.G.	21·3	20·1
Garnet x Three Seas 3412	Slightly lodged, fairly rusted	G.	30·2	G.F.	5·1	G.	17·8	17·7
Red Watchman x College 3402	Erect, fairly clean	F.G.	39·5	P.	13·0	G.	24·7	25·7
Red Watchman x College 3404	Fairly erect, very clean	S.P.	29·9	F.G.	12·3	G.	21·3	21·1
Red Watchman x College 3405	Erect, very clean	P.	24·4	F.G.	12·3	S.P.	19·9	18·8
Three Seas x Florence 3401	Slightly lodged, rusted	V.G.	33·0	F.G.	6·1	G.	14·3	17·8
Three Seas x Florence 3403	Slightly lodged, rusted	V.G.	30·9	P.	6·8	G.	13·9	17·2
Three Seas x Florence 3406	Slightly lodged, rusted	V.G.	27·5	S.P.	7·1	G.	13·9	16·1
Three Seas x Florence 3407	Slightly lodged, rusted	V.G.	38·2	S.P.	6·1	F.G.	14·3	19·5
Three Seas	Fairly erect, moderately rusted	V.G.	35·6	F.G.	8·9	G.	14·3	18·9
Three Seas x Florence 3409	Slightly lodged, moderately rusted	G.	20·6	F.G.	6·8	G.	10·3	12·5
Three Seas x Florence 3410	Fairly erect, moderately rusted	G.	23·7	F.G.	9·6	G.	13·0	15·4
Three Seas x Flo. x Flo. 3403	Erect, moderately rusted	V.G.	29·5	G.	8·9	G.	11·3	16·5
Three Seas x Flo. x. Flo. 3404	Slightly lodged, moderately rusted	V.G.	26·4	F.G.	7·5	G.	13·0	15·6
Warren x Kamberico 3401	Erecr, fairly clean	G.	30·5	F.G.	7·5	G.	8·9	15·6
Warren x Kamberico 3402	Fairly erect, fairly clean	G.	28·1	S.P.	10·6	F.G.	15·1	17·9
Warren x Kamberico 3403	Erect, moderately rusted	G.	17·1	F.G.	6·1	G.	10·3	11·1
Warren x Kamberico 3405	Slightly lodged, moderately rusted	G.	23·7	P.	8·2	F.G.	13·4	15·1
Warren x Kamberico 3407	Fairly erect, moderately rusted	G.	27·8	P.	9·3	F.G.	11·3	16·1
Three Seas	Fairly erect, moderately rusted	V.G.	33·0	F.G.	8·2	G.	15·1	18·7
Warren x Kamberico 3411	Fairly erect, moderately rusted	S.P.	28·4	F.G.	11·0	F.G.	17·8	19
Warren x Kamberico 3412	Fairly erect, moderately rusted	F.G.	25·0	F.G.	11·6	F.G.	19·2	18·6
Warren x Kamberico 3413	Slightly lodged, moderately rusted	F.G.	26·4	P.	9·6	F.G.	16·8	17·6
Flo. x B.I.P. x M. (2615) 3503	Erect, rusted	F.G.	28·1	S.P.	12·7	F.G.	23·0	21·2
Flo. x College 1 3510	Fairly erect, fairly clean	P.	30·5	V.P.	17·5	F.G.	27·5	25·1
Flo. x College 1 3515	Fairly erect, fairly clean	P.	29·9	S.P.	12·7	G.	25·4	22·6
Flo. x T.S. x K.C. 6042 3505	Erect, moderately rusted	G.	32·3	F.G.	9·9	G.	20·9	21·0
Flo. x T.S. x K.C. 6042 3541	Erect, moderately rusted	G.	28·8	F.G.	9·9	G.	20·9	19·8
Flo. x T.S. x K.C. 6042 3545	Erect, moderately rusted	G.	21·3	F.G.	11·0	G.	12·7	15·0
Three Seas	Erect, moderately rusted	V.G.	28·9	F.G.	8·2	G.	12·7	16·6
Flo. x T.S. x K.C. 6042 3549	Slightly lodged, rusted	G.	23·3	P.	4·8	F.G.	11·3	13·1
Kenya G. x Flo. 3515	Lodged	G.	19·2	P.	9·6	F.G.	12·3	13·7
Kenya G. x Flo. 3518	Lodged, moderately rusted	G.	23·3	S.P.	11·0	F.G.	15·8	16·7
Kenya G. x Flo. 3532	Slightly lodged, moderately rusted	G.	24·0	F.G.	12·0	F.G.	18·2	18·0
Kenya G. x Three Seas 3541	Badly lodged, rusted	V.G.	24·0	F.G.	7·5	F.G.	13·4	14·9
Kenya G. x Three Seas 3573	Slightly lodged, fairly clean	G.	24·0	F.G.	6·8	F.88	11·6	14·1
Kenya G. x Three Seas 3576	Lodged, moderately rusted	G.	25·4	F.G.	8·9	F.G.	14·3	16·2
Kenya G. x Three Seas 3590	Slightly lodged, moderately rusted	V.G.	26·1	F.G.	7·5	G.	13·9	15·8
Kenya G. x Three Seas 3592	Lodged, moderately rusted	G.	20·6	F.G.	7·8	G.	7·1	11·8
Three Seas	Fairly erect, moderately rusted	V.G.	30·9	F.G.	7·8	G.	12	16·9
Kenya G. x T.S. x Flo. 3504	Fairly erect, moderately rusted	G.	18·5	F.G.	9·6	F.G.	13·4	13·8
Kenya G. x T.S. x Flo. 3522	Moderately rusted, slightly lodged	G.	17·8	F.G.	7·1	G.	13·6	12·8
Kenya G. x T.S. x Flo. 3538	Erect, moderately rusted	G.	20·6	F.G.	11·3	G.	15·1	15·6
Pusa 4 x T.S. 3502	Erect, rusted	G.	26·6	S.P.	12·0	G.	18·5	19·0
Pusa 4 x T.S. 3503	Fairly erect, rusted	F.G.	29·5	F.G.	11·6	S.P.	17·8	19·6
Pusa 4 x T.S. 3504	Fairly erect, moderately rusted	V.G.	31·6	P.	12·7	F.G.	20·6	21·6
R.W. x College 3502	Erect, very clean	G.	26·6	F.G.	6·8	F.G.	9·9	14·4

WHEAT OBSERVATION PLOTS—*continued.*

Selection.	Rust Observations made Flegler's.	Tilley's.		Flegler's.		Wills'.		Average Yield.
		Quality Grain.	Yield.	Quality Grain.	Yield.	Quality Grain.	Yield.	
R.W. x College 3504	Erect, moderately rusted	V.G.	24·7	V.P.	4·11	F.G.	8·2	12·3
R.W. x College 3506	Fairly erect, rusted	G.	24·0	S.P.	6·8	F.G.	9·6	13·4
Three Seas	Fairly erect, moderately rusted	V.G.	34·0	F.G.	6·5	G.	16·3	18·9
R.W. x College 3508	Fairly erect, moderately rusted	G.	24·0	F.G.	7·5	G.	11·3	14·3
R.W. x College 35104	Erect, very clean	P.	26·1	S.P.	12·3	G.	22·0	20·1
R.W. x College 35120	Fairly erect, fairly clean	F.G.	30·4	F.G.	7·5	G.	13·6	17·1
R.W. x College 35129	Fairly erect, very clean	S.P.	23·6	S.P.	8·2	G.	17·5	16·4
R.W. x College 35131	Fairly erect, fairly clean	P.	27·5	F.G.	11·3	G.	21·6	20·1
R.W. x College 35133	Erect, fairly clean	P.	31·0	P.	11·6	G.	24·0	22.2
Three Seas x Flo. 3501	Slightly lodged, rusted	P.	28·1	S.P.	6·5	G.	13·0	15·8
Three Seas x Flo. 3503	Lodged, rusted	V.G.	35·0	F.G.	6·8	F.G.	14·3	18·7
Three Seas x Flo. 3506	Slightly lodged, rusted	V.G.	31·6	S.P.	8·7	F.G.	16·5	18·9
Three Seas	Fairly erect, moderately rusted	V.G.	35·0	F.G.	6·5	G.	17·5	19·6
T.S. x Flo. x Flo. 3501	Slightly lodged, rusted	V.G.	34·3	F.G.	7·5	G.	13·0	18·2
T.S. x Flo. x Flo. 3504	Slightly lodged, badly rusted	V.G.	25·4	F.G.	9·6	G.	9·9	14·9
T.S. x Flo. x Flo. 3511	Lodged, badly rusted	V.G.	22·6	S.P.	7·1	G.	12·3	14·0
T.S. x Flo. x Flo. 3513	Slightly lodged, badly rusted	V.G.	33·6	P.	6·1	G.	13·4	17·7
Warchief x Reward 3514	Fairly erect, rusted	S.P.	34·3	S.P.	7·8	S.P.	14·8	18·9
Warchief x Reward 3518	Erect, moderately rusted	P.	29·5	S.P.	6·8	S.P.	13·4	16·5
Warchief x Reward 3519	Erect, moderately rusted	S.P.	30·9	P.	7·5	V.P.	14·3	17·5
Warchief x Reward 3520	Erect, moderately rusted	V.P.	25·4	S.P.	7·1	V.P.	11.0	14·5
Warchief x Reward 3530	Erect, moderately rusted	F.G.	26·5	S.P.	8·9	G.	15·5	16·9
Three Seas	Fairly erect, moderately rusted	V.G.	33·0	F.G.	8·5	G.	15·8	19·1
Warchief x Reward x Reward 3501	Slightly lodged, rusted	F.G.	25·4	S.P.	9·6	F.G.	15·5	16·8
Warchief x Reward x Reward 3522	Fairly erect, rusted	F.G.	31·0	S.P.	9·9	F.G.	14·3	18·4
Warchief x Reward x Reward 3574	Fairly erect, moderately rusted	F.G.	31·0	P.	8·7	F.G.	14·3	18·0
W. x K.G.C. 6041 3534	Fairly erect, moderately rusted, late	V.P.	15·7	V.P.	15·1	P.	18·2	16·3
W. x K. x Le Hughenot 3501	Erect, moderately rusted	P.	20·6	F.G.	10·3	F.G.	15·8	15·5
W. x K. x Le Hughenot 3502	Fairly erect, moderately rusted	S.P.	33·6	V.P.	9·3	P.	13·0	18·6
W. x K. x Le Hughenot 3505	Slightly lodged, moderately rusted late	V.P.	19·9	P.	11·3	F.G.	15·5	15·5
W. x K. x Le Hughenot 3508	Slightly lodged, moderately rusted	S.P.	34·3	S.P.	9·9	P.	13·9	19·3
W. x K. x Le Hughenot 3511	Lodged, fairly clean	S.P.	29·5	S.P.	7·8	P.	12·0	16·4
Three Seas	Fairly erect, moderately rusted	V.G.	33·0	F.G.	6·8	G.	13·9	19·9
Warren x Warren x Bianc 3516	Badly lodged, moderately rusted, late	V.P.	13·1	P.	10·6	S.P.	16·3	13·3
Warren x Warren x Bianc 3517	Slightly lodged, rusted	G.	23·3	F.G.	8·5	F.G.	8·5	13·4
Warren x Warren x Bianc 3519	Slightly lodged, moderately rusted	P.	26·6	P.	11·0	G.	15·5	17·7
Warren x Warren x Bianc 3521	Erect, rusted	S.P.	28·1	S.P.	12·3	G.	18·2	19·5
Warren x Warren x Bianc 3525	Lodged, rusted, late	V.P.	21·3	P.	10·3	S.P.	16·5	16·0
L. 93 Sel. 1 W.	Short, erect, rusted	F.G.	37·8	V.P.	6·8	G.	13·9	19·5

WHEATS GROWN AT BRIMBLECOMBE'S (KINGSTHORPE).

SOWN, JULY, 1935. HARVESTED, DECEMBER, 1935.

Row.	Variety or Selection.	Remarks on Grain, &c.	Yield per acre (bushels).
1	Amby	Slightly rusty grain, fairly plump, white	18·0
2	College No. 1	Bearded, not rusty, grain red, very pinched	5·0
3	Currawa	Very rusty, cured off grain very pinched	13·4
4	Ford	Slightly rusty, cured off grain very pinched	12·8
5	Kenya Governor	Fairly rusty, ripe, grain pinched	15·3
6	Lawson	Fairly rusty (green late), grain pinched	10·3
7	Le Hughenot	Clean ripe grain pinched	22·4
8	Marquis Acme (¾-row)	Fairly clean, segregating in some instances, rusty, very pinched	9·2
9	Nabawa	Fairly rusty, late, very pinched	11·5
10	Warchief	Clean, late, grain very pinched	14·6
11	Warren	Fairly clean, late, grain very pinched	16·9
12	Florence x College 3401	Fairly rusty, late, grain slightly pinched	15·2
13	Florence x College 3402	Slightly rusty, medium early, white, bald, fairly pinched	17·7
14	Florence x College 3403	Slightly rusty, medium early, grain fair	14·8
15	Florence x College 3404	Fairly clean, mid-season, grain fair to good	18·2
16	Red Watchman x College 3403	Fairly clean, mid-season, grain slightly pinched, red	22·6
17	Red Watchman x College 3404	Fairly clean, mid-season, grain slightly pinched, red	22·6
18	Red Watchman x College 3405	Fairly clean, mid-season, grain poor colour, slightly pinched	19·6
19	Red Watchman x College 3589	Grain fair, pinched	19·2
20	Marquis Emmer	Clean late, grain very pinched	9·2

Sown with an ordinary seed drill 28 inches apart.

TESTS YIELD AT H. GEITZ, ALLORA.

Sown, July—Rate approx. ¾-bushel per acre in drills 12 inches apart by Dr. L. G. Miles. Five (5) randomised replications.

Variety.	Row Numbers.					Respective Yields in oz.					Total oz.	Yield per acre bushel.
Baringa	14	43	84	120	146	5¾	5½	4½	8	6½	30¼	16·6
Bunge No. 1	2	57	82	100	125	2¼	4¾	5½	5¾	5½	23¾	12·9
C.C.C. 2614	15	33	90	117	138	5	5	5	8	5	28	15·4
Cedric	4	42	68	107	134	3	6	5¼	7	10	31¼	17·1
Clarendon	24	38	77	105	133	6½	6	7½	5½	9¾	35¼	19·3
Currawa	3	40	71	109	128	2¾	3½	4¾	4½	7	22½	12·3
Dundee	29	60	81	110	136	4½	3½	3¾	3¾	5½	21	11·5
Flora	30	58	61	104	127	5½	4½	5¼	5¼	7½	28	15·4
Florence	7	51	63	92	126	5½	6¼	5¾	6¼	7	31	17·0
Florence x College 3401 ..	17	49	85	94	121	4½	4¾	4¾	6	6½	26½	14·5
Florence x College 3402 ..	10	31	74	103	141	5¼	5½	4¼	4¼	7¾	27	14·8
Ford	13	36	62	113	131	3½	6¼	4¾	4¾	7½	26¾	14·7
Gluyas	25	59	79	118	122	5¾	4¾	6¾	6¼	8½	32	17·6
Kenya C. 6041	1	48	66	96	145	6¾	7	6½	8½	9½	38¼	21·1
Kenya C. 6042	19	56	72	119	124	8½	8½	9½	8½	9¼	44	24·2
Kenya Governor	27	44	83	112	139	7	6½	5½	6	8½	33½	18·4
Nabawa	18	53	75	93	143	5¼	6	5½	3¾	7½	28	15·4
Novo	22	39	86	106	150	4½	6	7½	5	8	31	17·0
Pacific	8	54	87	108	144	4½	5½	6½	4½	4½	25½	14·0
Pusa 4	23	46	80	99	137	5½	6¼	7¼	6¼	8¼	33½	18·4
Pusa 4 x C.C.C. 3216	16	32	89	115	130	6	5½	5¾	6½	6¾	30½	16·7
Pusa 4 x Flora 3202	12	34	78	91	142	4½	4¼	6½	6¼	5½	27	14·8
Pusa 4 x Flora 3216	9	37	76	114	148	5¾	3¾	6¼	7	6¼	29	15·4
Seafoam	28	47	67	101	140	5¼	5¼	5¼	6	5¼	27	14·8
Seaspray	21	55	64	102	132	4¼	4¼	4¼	5	4¼	22	12·1
Three Seas	5	35	65	111	123	4½	6	5½	4½	4½	25	13·7
Three Seas x Florence 3403 ..	20	52	88	97	135	5¼	4¼	4¾	4¼	6	24½	13·4
Three Seas x Florence 3410 ..	11	45	69	116	149	6½	5½	4¾	8¼	7½	32½	17·8
Warchief	6	41	73	95	129	4¾	4¾	6¾	4¾	8	29	15·4
Warren	26	50	70	98	147	6	5¼	5¾	5½	8¾	31¼	17·1

Field observations submitted in report by Dr. L. G. Miles.

WHEAT-BREEDING SECTION.

Notwithstanding that at Roma in May there was a plentiful supply of moisture in the subsoil of the block set aside for wheat-breeding, it was not possible to proceed with sowing until further rain, sufficient to bring the surface layer into a condition to promote germination, was experienced.

This did not take place until the end of June, resulting in sowing not being finished until 5th July. This is definitely very late to put in wheat in this section of the State, but, in spite of this, subsequent conditions were such as to bring about normal results in this section, although the surrounding crops, as well as those throughout the district, were, on the whole, extremely light.

At Allora, as already mentioned, the land was far from being in a favourable condition when sown, and the subsequent weather did not in any way tend to ameliorate the disabilities under which the plants were contending, with the result that most of them failed to arrive at maturity; consequently little of value accrued from the sowing of this plot.

The following selections were made, chiefly at Roma, for sowing in the observation plots of 1936:—

Selection.	Estimated Yield per acre.
	Bushels.
Bunge No. 1 x Gluyas 3601	26·1
Ditto 3602	31·6
Ditto 3603	33·0
Ditto 3604	24·7
B.I.P. x M. x Florence 3601	22·0
Ditto 3602	19·9
Ditto 3603	19·0
B.I.P x M. x Florence 3604	15·8
Ditto 3605	15·8
Ditto 3606	21·2
Ditto 3607	16·5
Ditto 3608	20·5
Ditto 3609	17·1
Ditto 3610	17·6
Ditto 3611	16·5
Ditto 3612	19·9
Ditto 3613	17·6
Ditto 3614	19·0
C.C.C.3104 x Florence 3601	15·8
Ditto 3602	17·1
Ditto 3603	14·5
Ditto 3604	17·6
Ditto 3605	17·1
Ditto 3606	21·2
C.C.C. x Florence 3607	24·0
Ditto 3608	17·8
Ditto 3609	15·8
Ditto 3610	24·0
C.C.C. x Pusa 4 3605	16·5
Ditto 3615	16·5
Ditto 3618	22·6
Pusa x Flora 3604	19·2
Ditto 3606	18·7
Ditto 3607	25·9
Ditto 3608	15·4
Ditto 3609	23·3
Ditto 3610	24·7
Ditto 3612	25·9
Ditto 3615	24·7
Florence x College 1 3601	17·6
Ditto 3602	13·6
Ditto 3603	15·1
Ditto 3604	17·8
Ditto 3605	20·6
Ditto 3606	17·8
Ditto 3607	17·2
Ditto 3608	21·2
Ditto 3609	13·7
Hope x Canberra A 3601..	15·1
Ditto 3602..	15·1

Selection.	Estimated Yield per acre.
	Bushels.
Hope x Canberra A 3603	13·6
Hope x Canberra B 3601	20·6
Ditto 3602	21·2
Ditto 3603	22·4
Kenya G. x Florence x Three Seas 3601	21·2
Ditto 3602	19·0
Ditto 3603	15·8
Ditto 3604	13·7
Ditto 3605	19·2
Ditto 3606	19·2
Ditto 3607	17·2
Ditto 3608	17·8
Ditto 3609	19·9
Kenya Governor x Three Seas 3601	24·6
Ditto 3602	28·8
Ditto 3603	26·1
Ditto 3604	19·9
Ditto 3605	17·9
Ditto 3606	22·0
Ditto 3607	28·8
Ditto 3608	19·2
Kenya G. x Warren 3601	16·5
Ditto 3602	15·1
Ditto 3603	17·8
Ditto 3604	16·5
Ditto 3605	18·9
Ditto 3606	17·8
Ditto 3607	20·6
Ditto 3608	29·5
Ditto 3609	27·5
Ditto 3610	17·8
L. 37 (Dr. Waterhouse) 3601	17·8
L. 38 3601	15·8
L. 38 3602	15·8
M. 189 3607	13·7
M. 189 3672	15·8
M. 189 3676	15·1
M. 189 3678	15·1
M. 195 3612	17·6
M. 195 3679	18·7
M. 504 3686	15·8
M. 504 3687	15·1
0·53 3634	9·6
Red Watchman x College 3601	16·5
Ditto 3602	15·1
Ditto 3603	19·9
Ditto 3604	17·2
Ditto 3605	17·6
Ditto 3606	20·6
Ditto 3607	13·6
Ditto 3608	17·2
Ditto 3609	14·4
Ditto 3610	19·2
Ditto 3611	13·6
Ditto 3612	17·8
Red Watchman x College 3613	19·2
Ditto 3614	13·6
Ditto 3615	22·0
Seafoam Strain 3601	19·9
Ditto 3602	22·6
Shellal (Mixed)	14·4
Three Seas x Florence 3601	19·9
Ditto 3602	19·9
Ditto 3603	19·9
Ditto 3604	22·0
Ditto 3605	24·7
Ditto 3606	19·2
Ditto 3607	22·0
Ditto 3608	30·7
Three Seas x Florence x Three Seas 3601	20·6
Ditto 3602	20·6
Ditto 3603	27·5
Ditto 3604	19·9
Ditto 3605	22·0
Three Seas x Florence x Kenya Governor 6042 3601	17·6
Ditto 3602	19·2
Ditto 3603	21·2
Ditto 3604	22·0
Ditto 3605	23·3
Warchief x Reward 3601	21·2
Ditto 3602	18·7
Ditto 3603	19·2
Warchief x Reward x Reward 3601	27·5
Ditto 3602	19·2
Ditto 3603	25·9
Ditto 3604	19·9
Ditto 3605	28·8
Ditto 3606	23·3
Ditto 3607	23·3
Warren x Kamberico x Three Seas 3601	15·8
Ditto 3602	20·6
Ditto 3603	22·6
Ditto 3604	13·6
Ditto 3605	20·6
Warren x Kamb. x Le Hughenot 3601	19·9
Ditto 3602	19·9
Ditto 3603	20·5
Warren x K.C. 6041 3601	17·2
Ditto 3602	18·7
Ditto 3603	17·2
Warren x Warren x Beaucuccia 3601	20·6
Ditto 3602	22·0
Ditto 3603	17·2
Ditto 3604	19·9
Ditto 3605	17·2
Ditto 3606	21·2
Ditto 3607	18·7

The following selections were made at Roma and Allora for sowing in rod rows, 1936:—

Selection.	Rows.
B.I. P. x M. x Florence	25
Bunge No. 1 x Gluyas	9
Chimera (W. x Kamb.)	4
Dr. Waterhouse	13
Florence x College	77
Hope x Canberra	9
Hope x Federation	5
Hope x Gluyas	21
Hope x Gurkha	22
Hope x Minister	13
Hope x Rajah	11
Hope x Waratah	21
Hope x Yandilla King	12
Kenya G. x Three Seas	36
Kenya G. x Three Seas x Florence	52
Kenya x Warren	20
Pusa 4 x Flora	46
Pusa 4 x Hope x Gluyas	12
Red Watchman x College	64
Three Seas x Florence	58
Three Seas x Florence x Kenya C. 6041	10
Three Seas x Pusa 4	13
W. x K.C. 6041	18
W. x W. x Beaucuccia	16
W. x K. x Le Hughenot	30
F. 2 Grains.	
B. 1 x Em. 3202 x Kenya C. 6041	7
B. 1 x Em. 3201 x Kenya C. 6041	7
B. 1 x Emmer 3203 x Kenya C. 6041	7
Bunge No. 1 x Webster	7
(C.C.C. 3401 x Flo.) x Kenya G.	7
(C.C.C. 3401 x Flo.) x Kenya C. 6041	7
C.C.C. 3401 x Pusa 4	7
Dr. W. T. 2x (Pusa x Flora 3202)	7
Dr. W. T. 3 x (Pusa x Flora 3202)	7
Dr. W. O. 1 x Seafoam W. 4	7
Dr. W. U. 1 x Seafoam 6	7
Dr. W. U. 1 x (Pusa x Flora 3202)	7
Dr. W. U. 1 x Seafoam 8	7
Dr. W. U. 1 x Seafoam 5	7
Dr. W. U. 3 x (Pusa x Flora 3202) 8	7
Dr. W. U. 3 x (Pusa x Flora 3202) 12	7
Dr. W. U. 3 x (Pusa x Flora 3216) 13	7
Dr. W. U. 3 x (Pusa x Flora 3202) 17	7
Dr. W. U. 3 x (Pusa x Flora 3202) 9	7
Dr. W. U. 3 x (Pusa x Flora 3202)	7
(Flo. x Coll. 1) x Khapti Emmer 1	..
Flo. x Coll. x Khapti Emmer 1	..
Flo. x Coll. x Pusa 4 (4)	28
Florence x Hope	7

Selection.	Rows.
Florence x (Hope x Gluyas)	7
Gluyas x (Hope x Pusa 4)	7
Hope x C.C.C. 2708	7
Hope x Pusa 4 (1)	7
Hope x Pusa 4 (2)	7
Hope x (Pusa 4 x C.C.C. 3216)	7
Hope x (Pusa x Flora 3216)	7
Hope x Pyramidale	7
Hope x Seafoam	7
Khapti x (Warrior x K.) x Le Hughenot	7
Pacific x (Pusa x Flora 3202)	7
Pacific x (Pusa x Flora 3216)	7
Pusa 4 x Currawa	7
Pusa 4 x Hope	7
Pusa 4 x (Hope x Gluyas (4))	28
(Pusa 4 x (Hope x Gluyas)) x Three Seas	7
(Pusa 4 x (Hope x Gluyas)) x Three Seas	7
Pusa 4 x 650	14
Pusa 4 x R. 1	14
Pusa 4 x T. 2	14
(Pusa 4 x Flora 3216) x T. 2	7
(Pusa 4 x C.C.C. 3216) x Hope	14
Pusa 4 x Webster	7
(Pusa 4 x C.C.C. 3216) x Webster	7
(Red Watchman x Coll. 2) x Pusa 4	7
(Red Watchman x Coll. 2) x Pusa x Flora 3202	7
Seafoam W. x Hope	7
Seafoam R. x (Pusa x Flora 3202)	7
Seafoam R. x (Pusa x Flora 3202)	7
Seafoam W. x (Pusa x Flora 3202)	7
Seafoam W. x Dr. W. T. 2	7
Seafoam x Webster	7
(Three Seas x Kamb) x Pusa 4	7
(Three Seas x Kamb) x P. 4	14
(Three Seas x Kamb) x P. x Flora 3202	14
(Warchief x Reward) x Pusa 4	14
(Warchief x Reward) x P. x Flora 3202	14
(Warchief x Reward) x T. 2	7
(Warren x (Warren x Bianc)) x Pusa 4 x Flora 3202	7
(Warren x (Warren x Bianc)) x Webster	27
((Warrior x Kamb) x Le Hughenot) x P. x Flora 3216)	14
((Warrior x Kamb) x Three Seas) x (Kenya G. x Three Seas)	7
Webster x Pusa 4	7
Webster x (Pusa x C.C.C. 3216)	7

CROSSES MADE 1935.

Parentage.	Date Emasc.	Date Fec.	Time Fec.	No. Florets.	No. Grains.
(Bunge No. 1 x Webster Fl) x Amby	5 Oct.	8 Oct.	10·35	20	8
(Bunge No. 1 x Webster Fl) x Amby	5 Oct.	8 Oct.	9·10	18	9
(Bunge No. 1 x Webster Fl) x (Hope x Pusa 4 F1)	30 Oct.	31 Oct.	8·15	28	19
(Bunge No. 1 x Webster Fl) x (K.E. x Warrior x Kamb x Le Hugenot F1)	30 Oct.	31 Oct.	8·45	16	3
(C.C.C. 3401 x Flo. x K.G.) x (P4 x Hope F1)	1 Oct.	3 Oct.	10·45	24	8
(Florence x Hope Fl) x (Pusa 4 x Currawa F1)	20 Oct.	21 Oct.	9·30	24	15
(H. 4244 x S.G.P. Fl) x (K.E. x W. x K. x Le Hugenot F1)	1 Nov.	2 Nov.	3·15	8	3
(Hope x Pusa 4) x Dundee	1 Nov.	2 Nov.	3·5	12	8
(Hope x Pusa 4) x Dundee	4 Nov.	5 Nov.	10.0 a.m.	24	16
(Hope x Pusa 4) x Pusa 4	24 Oct.	25 Oct.	9.0	22	16
(Hope x Pusa 4) x Pusa 4	24 Oct.	25 Oct.	9·15	14	10
(Hope x Pusa 4) x (Hope x Florence ?)	13 Oct.	17 Oct.	9·45	22	8
Hope x Pusa 4 x Hope x Pusa 4 x C.C.C. 3216	1 Nov.	2 Nov.	11·0	12	5
Hope x Pusa 4 x Pusa 4 x Three Seas	1 Nov.	2 Nov.	2.45	24	22
Hope x Seafoam x Hope x Pusa 4	1 Nov.	2 Nov.	8.45	22	10
Hope x Seafoam x Hope x Pusa 4	1 Nov.	2 Nov.	9·45	14	15
Hope x Seafoam x Pusa 4	24 Oct.	25 Oct.	10.45	20	17
Hope x Seafoam x Pusa 4	24 Oct.	25 Oct.	10.50	20	13
Hope x Three Seas 2708 x Pusa 4	24 Oct.	25 Oct.	9.10	18	8
Khapli Emmer x W. x K. x L.H. x Rye	4 Nov.	5 Nov.	9.0	18	2
Khapli Emmer x W. x. K. x. L.H. x Hope x Pusa 4	30 Oct.	30 Oct.	2.0	24	3
(Kenya G. x (Flo. x Warren)) x (Hope x Pusa 4)	3 Oct.	3 Oct.	8.50	20	14
(Kenya G. x (Flo. x Warren)) x (Hope x Pusa 4)	3 Oct.	3 Oct.	8.35	10	10
(Kenya G. x Gem) x (Hope x Seafoam)	25 Oct.	25 Oct.	11.0	20	2
Kenya G. x (Gem x Pusa 4)	25 Oct.	25 Oct.	10.40	20	12
Kenya G. x R. x (Gem x Pusa 4)	25 Oct.	25 Oct.	7.45	16	11
Kenya G. x (Hope x Pusa 4)	1 Nov.	2 Nov.	9.0	24	8
Kenya G. x (Khapti x (Warrior x Kamb) x L.H.)	9 Oct.	9 Oct.	8.20	20	3
Kenya G. x Rye ? x Rye	3 Nov.	3 Nov.	9.30	7	4
((Kenya G. x T.S.) x Flo.) x (Pusa 4 x Hope) x Pusa 4	26 Oct.	26 Oct.	11.10	16	6
((Kenya G. x T.S.) x Flo.) x (Pusa 4 x Hope) x Pusa 4)	26 Oct.	26 Oct.	11.20	16	1
(Pusa 4 x Currawa) x (Pusa 4 x Hope)	30 Oct.	30 Oct.	10·35	22	4
(Pusa 4 x Currawa) x (Pusa 4 x Hope)	30 Oct.	30 Oct.	10·5	24	12
(Pusa 4 x Currawa) x Khapli Emmer x W. x K. Le Hughenot)	2 Nov.	2 Nov.	2·36	24	5
(Pusa 4 x Currawa) x ((P. x C. 3216) x Hope)	1 Nov.	2 Nov.	1.30	22	15
(Pusa 4 x Hope) x Amby	30 Oct.	30 Oct.	10.0	17	9
(Pusa 4 x Hope) x Amby	30 Oct.	30 Oct.	11.5	13	3
Pusa 4 x Hope x Amby	30 Oct.	30 Oct.	10.50	24	14
Pusa 4 x Hope x Pusa 4 x Currawa	30 Oct.	30 Oct.	10.35	24	14
Pusa 4 x Three Seas 3216 x Hope x P4 x Currawa	1 Nov.	2 Nov.	11.50	20	14
(Seafoam x Hope) x Amby	30 Oct.	30 Oct.	11.30	18	8
Seafoam x Hope x Pusa 4	25 Oct.	25 Oct.	3.45	20	1
Seafoam x Pusa x Flora 3202 x Hope x Seafoam	24 Oct.	26 Oct.	9.30	22	16
Seafoam x Pusa x Flora 3202 x Hope x Pusa 4	24 Oct.	26 Oct.	9.50	20	17
Seaform x Hope x Seafoam x Pusa x Flora 3202	1 Nov.	3 Nov.	11.30	19	12
Seafoam x Hope x Seafoam x Webster	23 Oct.	25 Oct.	2.35	16	10
Seafoam x Hope x Seafoam x Webster	25 Oct.	25 Oct.	2.20	14	7
Seafoam x Hope x Three Seas x Kamb. x Pusa x Flora 3202	1 Nov.	2 Nov.	11.15	20	18
Seafoam x Webster x Hope x Pusa 4	1 Nov.	3 Nov.	9.15	22	19
Seafoam x Webster x Seafoam x Hope	25 Oct.	25 Oct.	3.0 p.m.	24	3
Seafoam x Webster x Seafoam x Hope	24 Oct.	26 Oct.	10·0	26	15
Seafoam x Webster x Seafoam x Hope	25 Oct.	25 Oct.	2.50	24	8
Three Seas x Kamb x Pusa 4 x Seafoam x Hope	24 Oct.	26 Oct.	9.15	26	16
Three Seas x Kamb x Pusa 4 x Seafoam x Hope	24 Oct.	26 Oct.	9.35	24	16
Three Seas x Kamb x Pusa 4 x Seafoam x Hope	24 Oct.	26 Oct.	9.20	14	9
Webster x Pusa 4 x Pusa 4 x Hope	1 Nov.	3 Nov.	10.20	24	4
Webster x Pusa 4 x Pusa 4 x Hope	1 Nov.	3 Nov.	10.0	28	24
Miscellaneous crosses Whitehead and Smith	..	..	..	..	75

Although results from pollination (artificial) are no doubt influenced by climatic conditions, parentage, &c.—and even were such not the case the figures are not comprehensive enough to furnish any data of value—a rough analysis of them has been made with the following results:—

	Per Cent. Grains.
Pollination the same day as emasculated gave	39.7
Pollination deferred one day	59.4
Pollination deferred two days	65.8
Pollination deferred three days	44.8
Pollination deferred four days	36.3
Pollinations made between 8 and 10 a.m.	59.3
Pollinations made between 10 and 12 a.m.	44.2
Pollinations made between 2 and 4 p.m. ..	41.2

Exceptionally dry conditions were experienced throughout the whole of the period cross-pollination was being practised.

SUMMER SOWING.

With an idea of ascertaining whether there is the slightest possibility of speeding up the initial stages, at least, in wheat-breeding work, two small sowings of some of last season's crosses and seed from F1 plants were made in Toowoomba in January last in locations where water could be applied as required. Thanks are due to Mr. Cecil McKeon, of the State Wheat Board, and Mr. L. Woods, Agricultural Assistant attached to this Department, who kindly made available the few square yards of land required and undertook to give the waterings and other necessary attention. The results at both places greatly exceeded anticipation—in fact, to such an extent that it is proposed to elaborate the programme if possible next season. This will be chiefly in the direction of obtaining information as to the desirable sowing period.

Notwithstanding that exceptionally dry conditions were experienced throughout the whole of the growing season, necessitating frequent waterings, rust infestation was sufficiently severe to destroy a big percentage of the plants. But the pleasing feature was that from among those which resisted the visitation, it was possible to select individuals which showed complete freedom, producing grains which though red were plump and appeared to be of good quality. Of course, it must be realised that it is not known whether the more virulent forms of rust were present or not. Results do not altogether confirm the dominance of rust-resistant character in Hope. The combination producing this material was Pusa x Hope, and it is considered that the known grain qualities of Pusa, combined with the reputed disease resistant characteristics of Hope should, all things being equal, result in the segregating of types infinitely better than any at present under observation—judged from a grain producing and disease resisting standpoint.

In addition to this cross, the following crosses made last year were also sown with varying results, controlled by the amount of Hope blood they contained and the degree of susceptibility to rust of the other parent, which in many instances would be undeterminable, being in the segregating generation, viz.:—(Hope x Pusa 4) x Pusa 4 (failed owing to rust), (Hope x Seafoam) x Pusa 4 (varying results—good to poor), Kenya Governor x (Hope x Pusa 4) (destroyed by rust), (Seafoam x Hope) x (Seafoam x Webster) (five plants out of seven were sufficiently strong constitutionally and resistant to rust to produce grain for autumn sowing), (Seafoam x Webster) x (Seafoam x Hope)—(a reciprocal cross to the foregoing, also provides some useful material for sowing), (Webster x Pusa 4) x (Pusa 4 x Hope) (too late to furnish material from this sowing).

Sufficient crossed grains remain on hand to make a further sowing at the ordinary period.

Even from these results, it is very evident that it would be most unwise to make wholesale sowings of the previous spring crosses in the summer, even in the case of grains where one parent is a variety having practically a total immunity to rust, if this character is transmitted as a recessive, for there would always be the possibility in such instances of the conjugate plants being wholly destroyed by this agency. Any value to be derived from summer sowing will be in the determination of the resistance to or degree of immunity from rust possessed by the individuals in the F2 or segregating generation, and in order to avoid perhaps total loss it will be essential to make larger sowings than are made at present, so that in combinations where the factor is a recessive, the segregates carrying it will be in sufficient numbers to avoid being missed altogether—which is more likely to be the case, when restricted to a smaller population. It has been mentioned previously that results achieved far exceeded expectations from the summer sowing made. This refers more particularly to seed production, for it is unusual for plants resulting from a late germination to develop more than one or two ears, even when widely spaced, and at the best it was thought that the same would be the case from such an unseasonable sowing. This did not eventuate, for, in many instances, individual plants produced seven or eight heads (one produced ten, yielding 350 well developed grains).

LOOSE SMUT INFECTION.

This trial was really instituted with an idea of ascertaining the possibility of securing infected seed for experiment purposes, and the system adopted consists of removing the central florets from the spikes on the wheat ear, leaving the two outside ones, then cutting these across with sharp scissors midway between their apex and base when fully developed, covering the ear with a glassine bag containing an ear covered with loose smut.

The grains obtained, on being sown, gave a return of 65 per cent. of smutted plants. An increase on this might be shown under more favourable weather conditions at the infecting period with a proved susceptible variety, but even should the method not give as high a percentage of infected seeds as others employed, its simplicity and the number of florets that can be treated may more than compensate for the reduction in the incidence of the disease among the grains obtained.

This system of cutting the glumes has also been used considerably in connection with wheat and barley breeding, and although successful, it has to be admitted that in all instances the grain resulting has not been as well developed as that from an undisturbed floret or one crossed in the ordinary way. This, no doubt, in a great measure, is due to the injury sustained by the floret when cut, although there are other factors —such as light and heat—to be considered, as well as divergence in composition of the wheats concerned.

With an idea of ascertaining whether the exposure of the reproductive organs to the direct rays of light and heat through the removal of the upper portions of the glumes had any bearing in bringing about the reduction in the size of the grains produced or percentage of successful pollinations, thirty treated heads were covered with vari-coloured cellophane envelopes but nothing could be deducted from the results.

PROTEIN QUALITY TESTS.

In accordance with a decision at a conference held at Canberra last year, at which officers from the several States were present, "That it was undesirable to liberate into general cultivation any new variety of wheat, unless it equalled or excelled Gluyas in baking qualities, and that at the same time it was desirable in the best interests of the industry to bring about a curtailment in the area put under those at present being grown which did not conform to this standard," a number of wheats in general cultivation, as well as some of the recent crossbreds of promise, were submitted to the Agricultural Chemist for testing. It will be observed when perusing the results attached hereto that a local production—Pusa 4 x Flora 3202—gave a better figure than an imported sample of Manitoba wheat.

Variety.	Moisture.	Protein.	Protein on 10% Moisture Basis.	Average Settling Time (Min.)	Specific Protein Quality.
B.F.G. 2627	9·8	11·6	11·6	56	4·8
Pusa 4 x C.C.C. 3216	9·3	11·2	11·1	30	2·7
Pusa 4 x Flora 3202	9·4	16·2	16·1	169	10·5
Pusa 4 x Flora 3216	8·9	13·5	13·3	122	9·2
Pusa 4 x Gluyas 3002	9·3	13·5	13·7	24	1·8
Pusa 4 x Warren 3004	9·1	13·5	13·4	94	7·0
Florence x College 3404	11·1	15·4	15·6	130	8·4
Gluyas = Standard	*11·7*	*14·8*	*15·1*	*34*	*2·3*
Red Watchman x College 3404	11·8	14·2	14·5	99	6·8
Florence x College 3404 (duplicate)	11·8	14·2	14·5	108	7·0
Seaspray	11·8	13·3	13·6	35	2·6
Gem	11·1	15·2	15·4	28	1·8
Florence x College 3402	12·1	14·4	14·6	51	3·5
Pusa 4 x Gluyas (3002) Canning	11·3	12·7	12·9	26	2·0
Kenya Governor	11·7	14·0	14·3	98	6·9
Red Watchman x College 3403	11·6	14·4	14·7	92	6·3
Florence x College 3401	11·9	14·4	14·7	53	3·6
Florence x College 3403	11·7	14·2	14·4	63	4·4
Red Watchman x College 3405	11·6	15·0	15·3	100	6·5
Red Watchman x College 3589	12·2	14·3	14·7	52	3·5
Kenya C. 6041	12·3	15·3	15·7	50	3·2
Pacific	12·4	13·8	14·2	117	8·2
Kenya C. 6042	12·3	15·1	15·5	47	3·0
Three Seas x Florence 3410	12·5	13·0	13·4	123	9·2
Manitoba No. 1	11·6	17·4	20·0 ?	173	8·6 ?

BARLEYS.

The work done in connection with this crop was restricted to the testing of a number of varieties at four centres on the Downs, viz.:— Nobby, Rose Hill, Kincora, and Bongeen.

At three of the centres, the sowings consisted of half-chain drills of each variety, whereas at the fourth (Nobby) five drills, two chains in length, were put in of each kind, the two outside of which were discarded, when harvesting.

In relation to this crop, which has been more or less neglected in the past, the work outlined for this coming season includes a crossbreeding programme, and arrangements have been made with the Agricultural Department of New South Wales to furnish small samples of seed of their most recent introductions, which may prove of value in this respect.

The following are the results obtained from sowings made last season:—

Variety.	Rosehill.		Kincora.		Bongeen.		Nobby.		Average Yield per acre.
	Quality Grain.	Bushels per acre.	Quality Grain.	Bushels per acre.	Quality Grain.	Bushels per acre.	Quality Grain.	Bushels per acre.	
Cape	F.G.	27·5	G.	26·1	G.	22·0	F.G.	16·4	23·0
Chevalier	F.G.	17·2	G.	24·0	G.	22·0	G.	15·11	19·5
Golden Archer	F.G.	23·3	G.	36·6	F.G.	15·9	F.G.	10·11	21·4
Messenger	F.G.	19·7	G.	29·7	F.G.	17·0	F.G.	12·9	19·7
Plumage Archer (Dept.)	G.	20·6	G.	17·2	G.	8·0	F.G.	7·12	13·2
Plumage Archer (Imp.)	F.G.	18·7	G.	17·0	F.G.	19.7	F.G.	11·11	16·6
Sea of Azor	P.	18·5	P.	28·1	P.	10·3	F.G.	16·6	18·3
Sentinel	F.G.	37·8	F.G.	38·5	F.G.	27·5	G.	20·4	31·0
Spratt's Archer (Dept.)	F.G.	24·0	G.	30.2	F.G.	12·2	F.G.	12·10	19·6
Spratt's Archer (Imp.)	F.G.	22·0	G.	21·3	F.G.	13·7	G.	13·4	17·6
Vaughan	F.G.	39·5	P.	40·5	F.G.	18·8	F.G.	15·5	28·5
Winter Archer	F.G.	22·6	G.	21·3	F.G.	13·7	G.	10·8	17·1
R.C.B.	G.	30·5	G.	16·5	G.	13·7	Not harvested		15·1
R.C.B. 2908	G.	35·0	F.G.	16·7	G.	15·7	Not harvested		16·8

Throughout the chief maizegrowing districts in the southern portion of this State the meteorological conditions this season have again been of such a nature as to preclude the maximum development of this crop in any but very isolated localities. In the spring germinating rains were delayed and patchy; storms accompanied by hail and winds were widespread later in the season and so injured what might be considered the early crop that grain production was nearly reduced to vanishing point. With the later sowings, conditions did not show any marked improvement, with the result that the maize crop of Southern Queensland for 1936 will be one of the smallest harvested for some time past.

These unfavourable conditions also exerted their influence in connection with the results from the farmers' plots, and were it not for the fact that a reserve of grain was on hand from last season's stocks, a difficulty would have been experienced in the case of Funk's 90-Day of securing sufficient pedigreed seed to make even a small sowing next season.

The following list gives the location of the plots, varieties sown, and other relevant information:—

		Acres.
Improved Yellow Dent	J. McAtee, Kilcoy	5·5
	Wm. Reeves, Imbil	25
	Training Farm, St. Lucia	5
	Total	35·5
Reid's Yellow Dent	J. McAtee, Kilcoy	5
	Wm. Reeves, Imbil	10
	Total	15
Star Leaming	C. G. Tilley, Rose Hill	14
	J. Scheu, Kilcoy	3
	Duncan Bros., Allora	14
	Training Farm, St. Lucia	5
	Total	36·
Funk's 90-Day	Training Farm, Moggill	4
	E. J. Reeves, Muldu	2
	Total	6
Golden Beauty	J. Scheu, Kilcoy	5
	Total acreage all varieties	97·5

The plots situated at Rose Hill and Allora on the Darling Downs failed completely, and the other plot at Muldu could not be classed as anything but a failure, although it did provide a little grain.

The plot of Reid's Yellow Dent at J. McAtee's was knocked flat by wind and hail, which so adversely affected its subsequent growth that little of any value for seed purposes was obtained.

The section of Improved Yellow Dent on the same farm, and already mentioned as having had a number of off-type plants detasselled in it, should provide some useful material—due wholly to the fact that good cultural methods had been practised in the preparation of the seed-bed.

Both plots on the farm of Mr. W. M. Reeves at Imbil will give a fair yield of good material, conditions having been much more favourable in this locality than elsewhere.

The plots on Mr. J. Scheu's farm at Kilcoy will return a little, but owing to the fact that the vagaries of the season caused the two varieties to tassel simultaneously, it is impossible to guarantee the purity of either, although in the case of one—Golden Beauty—it will be necessary for a field selection to be made in that portion of the crop which would be least open to contamination by foreign pollen, as this is the only sowing made of this maize.

The St. Lucia Training Farm, in common with other places, experienced unfavourable conditions for maizegrowing. Nevertheless, results attended the sowings at this farm, which will enable further sowings to be made of two varieties from departmental strains of seed, which otherwise would not have been possible, for elsewhere the plots of the two varieties in question failed.

At present it is not possible to furnish any information as to the quantity of seed maize which will be obtained from this season's plots, as harvesting has not yet been completed.

SOYA BEANS.

Progress reports have been submitted from time to time in connection with the tests undertaken with this crop this season on the farm of Mr. J. McAtee at Kilcoy. As these have now been finalised, it is possible to furnish the results and make suggestions in connection with a continuation of the work next season.

Variety.	Remarks, Yields, &c.
Biloxi	Germination very poor; flowering 19th February; height, 2 ft. 9 in.; coarse growth; erect; pubescent; leaf fungus present; pulse did not fill well; yield, 6 lb.
Mammoth Yellow	Germination only fair; thin, due possibly to seed drill; flowered first week in February; height, 2 ft. 6 in.; very coarse growth; erect; pods large and numerous; susceptible to leaf fungus; pulse large yellow of good appearance; yield, 16 lb.
Laredo	Germination poor; flowered first week in February; height, 2 ft. 9 in.; semi-trailing habit; set heavy crop of pods, but heavy infestation of leaf fungus interfered with development of seed; colour, black; yield, 34 lb.
Easy Cook	Germination poor; flowered first week in February; medium coarse erect growth; well covered with large pods; height, 2 ft. 9 in.; yellow seed; yield, 61 lb.
Tarzan	Germination good; flowered February 19th; height, 2 ft. 9 in.; slightly coarser than Otootan; very little leaf fungus; pulse very poor quality; black; yield, 11 lb.
Otootan	Germination good; flowering February 19th; height, 2 ft. 6 in.; nice, fine, semi-trailing habit; heavy cropper; suitable for fodder, green manuring, or pulse production; best all round variety; black seed; yield, 77 lb.

Attempts were made to cross several of the varieties, but what results attended these efforts will not be known until next season. Unfortunately, owing to its late-flowering habit, it was not possible to include the variety Otootan amongst the parents.

Season 1936-37.—With the idea of perpetuating those varieties, which have proved to be the best of those at present under observation and testing the more recent introductions from overseas, tentative arrangements have been made with Mr. McAtee to reserve a similar area of land under the same conditions as previously for the coming season's work.

In addition to this, it is proposed to sow two field crops of the two varieties of which we have seed available which did the best with us last season. The suggestion is to sow an area of each as a solid crop and an area in drills as a hoed crop in one of the wheat districts, where, if they should prove successful, it will be possible to harvest with a reaper thresher—the method employed in the U.S.A., where they are being grown extensively. An area of land already prepared for a wheat crop, but not sown, should prove to be in a desirable condition if kept clean when the sowing season for soya beans arrives.

COWPEAS.

Small sowings were made of this crop at St. Lucia Training Farm and on the farm of Mr. Logie, at Beerburrum, with satisfactory results considering all things. From the crop sufficient seed was retained to make similar sowings next season, the balance being left with the grower.

Following were the selections tested:—

Large White x Skewbald x Poonah ..	3501
Large White x Skewbald x Poonah ..	3507
Large White x Skewbald Sel. 1 ..	3503
Snake x Poonah	3505
Large White x Skewbald x Poonah ..	3507
Large White x Skewbald x Mammoth	3509
New Era x Poonah x Mammoth ..	3510
Poona x Mammoth x Snake x Poonah	3516
Poona type (selection from Snake x Poonah)	3517
Brabham	3524

In addition to these sowings, five ranges of selections were distributed.

Season 1936-37.—Recently a sample of the Turiana cowpea was received from New South Wales, and in the accompanying letter of advice it was stated that this variety had been tested at one of the departmental farms, with the results that went to demonstrate that it had many desirable characteristics, which might make it suitable for growing in the Kingaroy district, whence the farmers on the north coast of New South Wales receive their supplies of seed of this plant for green manuring purposes. It was suggested that the seed forwarded from New South Wales should be grown in the South Burnett next season for trial and seed multiplication purposes. This suggestion appears to be sound, and it is proposed to test the variety in the district mentioned, also some of the best of new crossbreds, named varieties, and a recent introduction from the United States of America called Suwannee.

PEANUTS.

The granting of Dr. L. G. Miles' request, when notified that the southern work in connection with this crop had been allocated to me, that my services be made available throughout harvesting operations in connection with peanut trials under his observation, has resulted in my becoming sufficiently familiar with the objectives he has in view to enable me, in the future, to be of some assistance at this end in helping him to achieve them.

Season 1936-37.—The line of work proposed for next season consists, in the main, of the further testing of those strains selected last season.

Dr. Miles, who has been connected with these trials since their inception, will design the work to be carried out at the Kingaroy centre as well as that at his own. This will give the results obtained possibly more value for comparative purposes than they would if they were designed otherwise.

Potatoes.—Observation trials of varieties of potatoes have been conducted on the properties of Mr. R. C. Bird and L. Oxenford in the Coomera district, progress reports on which have been submitted from time to time.

R. E. SOUTTER,
Agricultural Research Officer.

REPORT OF THE DIRECTOR OF TROPICAL AGRICULTURE.

The preliminary work of organisation and establishment of the Bureau of Tropical Agriculture at South Johnstone occupied most of the period under review—23rd September (1935) to 30th June. It was November before a definite beginning could be made with planned field work. Full advantage was taken of infrequent periods of dry weather—the wet season commenced unusually early—for clearing and preparation of the land for tropical fruits and other crops. In addition to the land immediately available for cropping, an area of 8 acres was cleared for the laying down of experimental plots.

A further area of 6 acres of scrub is being grubbed and stacked. After burning off, the land will be ploughed in readiness for planting selected fruit trees.

It has been necessary to either repair or replace the whole of the boundary and subdivisional fencing.

WEATHER.

Since the beginning of January weather conditions have been most unfavourable, and have interfered seriously with draining, clearing, and field work generally. Rain has fallen almost continuously at the station, as will be seen from subjoined table:—

RAINFALL.

Month.	No. of Wet Days.	Rainfall Points.
October	11	804
November	9	462
December	4	72
January	13	1,601
February	19	5,020
March	21	2,285
April	19	1,634
May	24	1,263
June	19	1,122
Totals	139	14,263

EXPERIMENTAL WORK.

Reports of experimental field work with fodders, pastures, cereals; and lucerne in the coastal and tableland districts are appended. Results of experimental work so far attempted at the station indicate very definitely that all work of this nature must be commenced well in advance of the wet season. The land was not in a fit condition for sowing until the beginning of February. Over 50 inches of rain fell during that month, followed by, approximately, 23 inches in March, 16½ inches in April, 12½ in May, and 11¼ in June.

Satisfactory results, so far, have been obtained from the grass plot in which the following varieties are under trial:—

> *Digitaria pole evansii, Digitaria pentzii, Digitaria eriantha, Digitaria valida, Andropogon distachys, Panicum maximum (fine stemmed), Panicum coloratum, Urochloa pullulans, Urochloa tricophus, Urochloa sp., Eragrostis curvula, and Setaria aurea.*

Cynodon plectostachyum and *Panicum antidotale* at no stage showed promise. Many of the others show distinct promise, and increased plantings have been made to provide sufficient seeds and rootlets for more extensive trials during the spring and summer.

Pentzii and *valida* have made remarkable growth, and they should prove extremely valuable grasses for the coastal districts. It is also intended to try both out on the Tableland, where it is hoped they may prove of value, particularly in the areas affected with white grub. Rooting at every node, these grasses should recover more rapidly from grub attack than *paspalum,* which is dependent entirely on a main root system. Both grasses may prove rather difficult to eradicate if necessary, and for that reason care should be exercised in planting them only on areas not likely to be required for cultivation. Test trials have been planned for determining this point. It is also intended this season to test their behaviour when subjected to grazing.

Panicum maximum and *Panicum coloratum* have also shown great promise, and have responded well to each cutting. These and the three *urochloas* should prove to be very useful grasses if carefully grazed, and will be tried out on a more extenisve scale.

COWPEAS.

Trial plots of the following varieties were sown:—Ten Roma crossbreds, Clay, Giant, Poona, Black; also strains of Poona and Brabham which were received from South Africa. Considering the extremely unfavourable weather conditions, and also the fact that they were sown so late in the season, most of them made fair growth and produced sufficient seed to repeat the trial on a larger scale and under more favourable conditions.

MISCELLANEOUS LEGUMES.

Small trial plots of the following were sown:—Brown grain, brown horse grain, large white-seeded grain, guarra, white-seeded sun hemp, Somerset sun hemp, *Sesbania coerlescens, Sesbania leptocarpus, Sesbania tettaptera, Leucanea glauca, Crotolaria intermedia, Carolina crotolaria,* and black mung bean; two strains of Lespedezas, Sericea, Kobe and Korean Lespedeza were also sown. All of the foregoing made very poor growth and were eventually ploughed out. Sufficient seed of most of these was reserved for further trials, and sowings are to be repeated early in the spring.

MAIZE.

Small sowings were made chiefly for the purpose of determining the most suitable period of the year to conduct the improvement and breeding work which is to be put under way. Results so far indicate that it will be necessary to sow sufficiently early in the season to allow the plants to mature before the commencement of the wet season. It is also intended to prepare an area on the river flats for this work, where the soil appears to be suited for the growth of maize. The flats are subject to flooding, but the climatic conditions are such that sowings could be carried out early enough to permit of the crop being harvested before floods are likely to occur.

SORGHUMS.

Small plots of each of the following were sown, and whilst a good germination resulted, the plants failed to develop and were eventually ploughed out.

Grain Varieties.—Klerksdorp 3, Natal 4 and 6, Black Hull, Chitra Cholam White and Yellow, Red Cholam, Brown Yolo, Dawn Kafir, AC 29, 1575, and 802, Wheatland Milo, Club Kafir, Old White, AC 1543, 1098, 841, T 12, Hayes Dawn, Potchefstrom Dawn, Bergville selection 1 and 3, Kalo selection 3, Standard Milo, Hegari Bird-proof, Klerksdorp 4, Sharon, Redfort Hayes, Dwarf Pink, American Early Red, Day Milo, Giza 4 and 16, Pietersburg White, Reed C1 1628, American Red and Atlas.

Saccharine Varieties.— Cowper, Planter's Friend, Cowper x N.S. Wales, Saccaline, Early Orange, Early Amber, White African, Sumac, Italian; also the following unnamed sorghums which were received from the Pure Seeds Branch: Nos. 2206, 1188, 1310, 1440. Sufficient seed was reserved to permit of further sowings being made of most varieties.

TOBACCO.

Seeds of four varieties brought from the United States were sown with the idea of raising seed for future work. This seed is considered to have possibilities for future breeding work. Three varieties germinated well, the fourth after repeated attempts proving infertile. Seedlings of the three varieties referred to were raised and later planted out in the field. Despite the very severe weather conditions they have survived, and there is every reason to hope that they will now produce seed. To date none has shown any signs of disease of any description.

COTTON.

Seed of eight varieties was received for trial. An excellent germination resulted, but the weather conditions proved too severe, and the plants, after reaching a height of a few inches, developed root rot and eventually died. It is thought that much better results may be expected from the next sowing which it is proposed to make about the end of July.

PUMPKINS.

Seed of six different selections of the Beaudesert variety was brought here for further improvement work. Sowings of each of these were made with poor results. They will be resown as soon as weather conditions are favourable.

SWEET POTATOES.

A limited number of cuttings of each of twelve varieties was received from St. Lucia, and these are being propagated. All have made excellent growth and, as soon as weather conditions permit the area covered by each will be considerably increased.

TEA.

Several hundred seeds were collected from trees growing on the old experiment station at Bartle Frere. A very fair germination resulted in the case of one variety and approximately eighty fine healthy seedlings have been raised. Of the other two varieties only a few seeds of one germinated, but none of the third variety germinated. It is evident that the best results are obtained from seed which is picked from the trees, and that little or no result can be expected from the seed which has ripened and fallen from the trees. Seedlings are being tubed to compare the results of this method of planting out, with those obtained where the open root method is adopted.

OTHER CROPS.

Coffee, vanilla, pepper, aniseed, avocado, nangka, salak, durian, sawo, Manilla, solo papaw, mangoes, litchee and Cashew nuts are also under test.

FIBRES.

Plants of the following were received from the Curator, Botanical Gardens, Brisbane, all of which are now well established:—*Boehmeria foetida, Boehmeria lindeni, Sansevieria guineenses, Sansevieria zealandia, Sansevieria cylindrica.*

Following is a list of plants included in the immediate planting programme:—

Avocados—	
Feurte	1
Robinson	1
Spinke	1
Campbell	1
Queen	1
Pankie	1
Queensland Nuts—	
Frotcher	2
Success	2
Albert	2
Pineapple Suckers—	
Commonwealth seedling	25
Eden 91	25
Alexandria	25
Black Spanish	25
Red Spanish	25
Rochedale Seedling	25
Oranges—	
Jaffa	3
Joppa	3
White Siletta	3
Valencia Late	3
Washington Navel	3
Byfield Seedless	3
Mandarins—	
Beauty of Glen Retreat	3
Scarlet	3
Grapefruit—	
Marsh Seedless	3
Foster's Pink-fleshed	3
Duncan	3
Merthyr	3
Thompson's Pink-fleshed	3
Lemons—	
Villa Franca	2
Lisbon	2
Lemons—	
Eureka	3
Genoa	3
Mandarins—	
Improved Solid Scarlet	3
King Siam	3
Oon Shui	2
Ellendale Beauty	2
Fewtrell's Early	2
Emperor	3
Custard Apples—	
Smooth Fruited (Langbecker's Strain)	3
Pink Mammoth	3
Island Queen	3
Passion Fruit Seed—	
Large Variety Mammoth	1 oz.
Common Purple	1 oz.

SUGAR-CANE.

Cutting was completed in September last, and 405 tons were sent to the mill. As this tonnage was cut from slightly over thirteen acres, the yield can be considered highly satisfactory, more especially as the season was not a very favourable one. The greater portion of this was third and fourth ratoon which, in ordinary circumstances, would have been ploughed out and replanted. On account of lack of field facilities incidental to the inauguration of the Bureau it was decided to ratoon all but a small block of approximately one acre.

Considering the age of the cane the crop to be cut this season may also be regarded as highly satisfactory, and the tonnage should not be much below that of last season. The area under crop is excellent cane land, and is much more suitable for this than any other purpose.

EXTENSION WORK.

During the period under review several visits have been made to the Atherton Tableland in connection with the white grub problem. As full details of the work done to date will be furnished through another channel, it is not proposed to deal with the matter other than to take this opportunity of expressing my appreciation of the splendid enthusiasm, and also the whole-hearted support of the members of the White Grub Investigation Committee. It would not be possible for any committee to have worked together more harmoniously, and with more enthusiasm.

The pig feeding experiments are now well under way and much information has already been gained which will be of value in designing future experiments.

It has been very pleasing to record the interest that is being taken in the Bureau, and also to learn how eager farmers and others are to co-operate in its activities.

The prolonged wet season and pressure of organisation and development work has not permitted of a lengthy tour being made of all the coastal districts for the purpose of meeting settlers and discussing their problems with them. Those with whom contact has been made have expressed a very keen desire to co-operate in every way possible.

As previously stated, the prolonged wet season has interrupted outside work very seriously, and it is only due to the fact that the farm employees have worked so willingly under very trying conditions that so much has been accomplished.

C. J. McKEON,
Director of Tropical Agriculture.

REPORT OF SENIOR INSTRUCTOR IN PIG RAISING.

MR. E. J. SHELTON, Senior Instructor in Pig Raising, reports:—

In recent years the national aspect of the pig industry in its relationship to overseas trade, and, within our own borders, in its association with general agriculture, particularly dairying and mixed farming, has assumed a definite form. The industry, expanding widely, continues to add its substantial contribution to the economy of the Commonwealth.

The opening of extensive export outlets for frozen pork, hams, and other products, plus a steady expansion of the home market, has stimulated the rapid development of the industry, with closer attention to breed improvement, animal nutrition, and marketing and research problems as a natural corollary.

There has been a marked reduction in the incidence of disease in pigs and an absence of highly infectious and contagious disorders.

SCOPE OF THE INDUSTRY.

About 26,000 registered dairy farmers are either actively engaged in the industry or are potential raisers of better quality pigs. This large number of farmers is scattered along 1,500 miles of coastal and tableland country from Stanthorpe to Cooktown, within a lateral limit of 300 miles.

INSTRUCTIONAL.

In the correspondence course of instruction in pig raising arranged by the Department, 478 students have enrolled. Of this number 167 have completed the series; 197 have discontinued after having completed varying sections of the course, and 114 are still receiving instruction.

Students include farmers, farmers' wives and families, teachers in State and rural schools; members of home project clubs, and group members as in the case of the Agricultural College at Abergowrie, North Queensland, and at St. Lucia Farm Training School, Brisbane. The course covers 48 lessons, and is remarkable for its simplicity, economy and thoroughness.

DISEASE IN PIGS.

Under authority of "*The Pig Industry Act of* 1933," extensive investigations have been made into the incidence of disease in pigs. Results have, so far, been satisfactory.

This is the first definite attempt to conduct a continuous investigation into disease incidence, principally in respect of tuberculosis in pigs. In past years periodic investigations were made, chiefly when losses were much above normal.

The present continuous investigation is proving its value. Farmers generally have expressed much satisfaction with the action taken by the Department.

These investigations into disease in pigs are carried out in co-operation with the Stock and Dairy Branches and the Animal Health Station.

IDENTIFICATION OF PIGS.

Practically all of the bacon and pork pigs reaching curers, manufacturers, and exporters are now identified effectively, and there is very little trouble with blotched or indecipherable brands. Several methods of identification are in use. In order of merit they are: Body tattooing, firebranding (for stock for immediate slaughter), earmarking, and ear tattooing. The marking of sucker, weaner and store pigs is carried out with difficulty, and is still largely in its experimental stages. Further research work is necessary in order to find more effective methods of identification for all classes of pigs.

INSPECTION OF PIGGERIES.

Inspection of piggeries was made regularly, and reports were useful in recording progress and providing additional opportunities for instructional work. Only one prosecution was made in the course of the year, and that was for non-observance of branding regulations.

ORGANISATION OF PIG BREEDERS.

The formation of district pig breeders' societies, each of which acts as a connecting link between the farmer, the Department, and the Stud Pig Breeders' Society, is a new departure in rural organisation. These societies (of which the Gympie District and the Darling Downs and West Moreton Pig Breeders' Associations are examples) have as their objective co-operation in arranging field days, and in strengthening the bonds of interest of those not otherwise specially provided for in local producers' associations.

BACON PIG PRICES.

Average price paid for bacon pigs in Queensland during recent years:—

	Per lb. *d.*
1933	4
1934	4·54
1935	4·72
1935-36	4·72 to 5

Similar increases in value have been recorded for porkers purchased for export, although porker prices are invariably slightly less than those paid for baconers (at per lb. dressed weight).

BACON PIG PRICE SCHEDULE.

To meet an increasing demand from overseas for heavier weight carcases and to provide for heavier weight, yet fleshy types of pigs, produced from the modern type of Large White and Tamworth Cross, a number of alterations in the schedule of weights covering purchase of bacon pigs have been made. These allow in the case of prime quality pigs, dressing between 120 and 140 lb., for a flat rate of payment in accordance with current schedule price. Prime quality baconers are also accepted at between 140 and 160 lb. dressed weight, although at a lower price per lb. than those of lighter weight.

The demand in North Queensland does not favour the heavier weight carcases, hence at present those altered weights do not apply there.

Trade Expansion.

It is of special interest to note the extension of the Eastern trade in pork products. Consignments are forwarded regularly to the following ports:—

Dutch East Indies.—Batavia, Sourabaya, Semarang, Cheribon, Medan, Macassar, Padang, Palembang, Benkoelen, Tandjong Karang, Menado, Samarinda, Bandjermasin, Pangkal Pinang, Pontianak.

Straits Settlement.—Singapore.

Federated Malay States.—Penang.

Philippine Islands.—Manila, Ilo Ilo, Davao.

China.—Shanghai, and Hongkong.

India.—Bombay.

Siam.—Bangkok.

French Indo China.—Saigon, Haiphong.

Ulcerative Spirochaetosis of Pigs.

This disease has had attention at the hands of the veterinary staff at the Animal Health Station during the year. It is not widely distributed and is responsible for minor losses only, but is, nevertheless, a disease of pigs with which farmers should be conversant.

Parasites of the Pig.

Reference will be found in the Report of the Director of the Animal Health Station to the work carried out by Dr. F. H. S. Roberts on parasites of the pig, work with which officers of the Pig Branch have been associated.

Diseases of the Pig.

Fortunately, there have been no serious outbreaks of disease in pigs during the year; in fact, there has been a marked reduction in losses due to disease.

Stabilisation Scheme for the Pig Industry.

Negotiations for the introduction of this scheme throughout Australia are still in progress, and much useful work has been done by the Australian Council for the pig industry in co-operation with State organisations.

Scheme for Financial Assistance in Importation of Stock.

This scheme, financed by Commonwealth and State Governments and by the Rural section of the Commonwealth Bank, came into operation during the year and applies to stud boars and sows in the Berkshire, Large White, Middle White, and Tamworth breeds.

Northern Pig Board and Bacon Association.

Steady progress has been maintained in North Queensland, where the industry is served by the North Queensland Co-operative Bacon Association, with a bacon factory at Mareeba, and with which is associated the Northern Pig Board.

Short Course at Gatton College.

The annual winter school of instruction for pig and dairy farmers, with which officers of the Department were associated, was held at Gatton College and was well attended.

Staff Report.

Mr. L. A. Ddwney, Instructor in Pig Raising, reports:—

Litter Recording.—Reports on a number of litters were made and this information, in addition to that gained in the previous year, indicates a vast field of work awaiting investigation.

The variations in results of litters caused through hereditary and environment inffluences are shown in the following tables:—

Owner.	Breed.	Date of Birth.	No. Reared.	Weight at Eight Weeks.	
				Total.	Average
				Lb.	Lb.
Hibberd Bros., Indooroopilly	Large White	21 Feb., 1935	12	473	39·4
Hibberd Bros., Indooroopilly	Large White	19 Jan., 1935	8	384	48·0
H. O. Rees, Maleny	Middle White	21 Feb., 1935	10	386	38·6
A. G. Stewart, Gympie	Large White	9 Nov., 1934	11	453	41·1
A. G. Stewart, Gympie	Large White	9 Feb., 1935	8	284	35·5
R. Turpin, Lowood	Wessex Saddleback	20 Mar., 1935	10	422	42·2
R. Turpin, Lowood	Wessex Saddleback	8 Apl., 1935	10	447	44·7
T. Wallace and Son, Dinmore	Middle White	10 May, 1935	10	274	27·4
A. G. Stewart, Gympie	Large White	22 May, 1935	10	425	42·5
R. Turpin, Lowood	Wessex Saddleback	25 June, 1935	8	366	45·8
H. O. Rees, Maleny	Middle White	15 July, 1935	8	268	33·5
Hibberd Bros., Indooroopily	Large White	17 Aug., 1935	10	327	32·7
Hibberd Bros., Indooroopilly	Large White	19 July, 1935	9	336	37·3
M. G. Bayliss, Maleny	Large White	23 Aug., 1935	8	399½	49·9
H. O. Rees, Maleny	Middle White	26 Aug., 1935	9	282	31·3
R. Turpin, Lowood	Wessex Saddleback	14 Sept., 1935	10	375	37·5
A. G. Stewart, Gympie	Large White	4 Oct., 1935	13	488	37·5
Salvation Army Farm, Riverview	Middle White	17 Oct., 1935	7	168	24·0
Salvation Army Farm, Riverview	Middle White	21 Oct., 1935	9	216	24·0
H. O. Rees, Maleny	Middle White	20 Oct., 1935	8	234	29·2
M. G. Bayliss, Maleny	Large White	27 Oct., 1935	7	322	46·0
Hibberd Bros., Indooroopilly	Large White	30 Dec., 1935	10	372	37·2

SUMMARY OF TWENTY-TWO LITTERS OF PIGS RECORDER TO DATE.

Number of litters	22
Number of owners	7
Number of breeds (Large White, Middle White, Wessex Saddleback)	3
Average number of pigs reared per litter to 56 days	9·3
Average weight per litter at 56 days	350 lb.

Average weight per pig at 56 days	37·3 lb.
Lightest litter at 56 days	168 lb.
Average weight per pig of lightest litter	24 lb.
Number reared in lightest litter	7
Heaviest litter at 56 days	488 lb.
Average weight per pig of heaviest litter	37·5 lb.
Number reared in heaviest litter	13

Litter recording and pig testing is work requiring development in Queensland.

REPORT OF THE POULTRY EXPERT.

Mr. P. RUMBALL, Poultry Expert, reports:—

The rate of development that has been noted in the last few years has been maintained during the period under review, as is indicated by the number of eggs marketed through the channels of the Egg Board. There appears, however, to be indications that the rate of expansion has been arrested, which is, no doubt, due to the increase in cost of production without a corresponding increase in values.

The position of the industry can best be judged by the following tables:—

Eggs Received by Queensland Egg Board.		Gross Average Price Paid Growers by Queensland Egg Board.
1934—4,718,907 dozen	..	11·86 pence
1935—5,489,315 ,,	..	11·77 ,,

AVERAGE COST FODDER—BRISBANE.

Period.		Maize. Per bushel.	Wheat. Per bushel.	Pollard. Per 140 lb.	Bran. Per 100 lb.
1st half 1934	..	2 10¾	3 4	8 7½	5 6½
2nd half 1934	..	3 1¾	3 10¼	9 0¼	6 1
1st half 1935	..	3 9½	3 8½	8 11½	6 2½
2nd half 1935	..	4 10½	4 6½	9 8½	6 11
1st half 1936	..	5 2½	4 11	10 8	7 4

The receipts by the Queensland Egg Board indicate an expansion during the twelve months ending 1935 of 16 per cent. as compared with 1934. This rate of expansion, judging by the receipts during the first half of 1936, has not been maintained. The increased cost of production is undoubtedly responsible.

The high cost of fodder has encouraged farmers to try out various methods of feeding. One method that has been recommended by southern breeders that will reduce the costs and give satisfactory results is the feeding of wheat that has been soaked for twenty-four hours. This soaked wheat must, however, be fed in conjunction with protein rich foods such as meat meal. It is claimed that the system reduces the quantity of food required per bird. Soaking does not appear to affect to any material extent the analysis, and, if there is any very definite benefit, it probably revolves around the factor of digestibility. The benefits can only be judged by trial and, as many farmers have resorted to this method of feeding to reduce costs and others placed a portion of their flock upon the system for comparative purposes, time will indicate the value, if any.

Officers of this branch are also endeavouring to reduce the production costs to producers by encouraging the systematic culling of flocks. This encouragement is given by means of lectures and field days in many country centres and by personal visits to various farms.

No opportunity is lost to bring under producers' notice the beneficial results that accrue by the efficient feeding of growing stock, and that have been so well demonstrated by feeding experiments conducted at the Animal Health Station.

During the past year the export of eggs in shell reached the record of 2,152,800 dozen, which is approximately 10 per cent. above any previous year. A very pleasing feature of this trade is that it resulted in a profit of £9,394 and that the gross realisation was almost 2d. per dozen above that of the 1934-35 season.

Local sales by the Board during the year were 7 per cent. greater than the year ending 1934. Unfortunately, however, the gross price paid to the producer was ·09 pence per dozen less. This was due to lower prices ruling in markets other than overseas to which surplus had to be sent during certain periods of the year. The Egg Board is making every effort to increase their local trade with the object of obviating losses that occur in interstate trade.

The premises that are being erected for the Queensland Egg Board at an approximate cost of £30,000 are now nearing completion. The building will permit of the more economic and efficient handling of eggs and, as it is situated upon the corner of River road and Makerston street, it will be most convenient to producers who cart their own product to Brisbane, and to rail.

The building is an imposing three-story structure, the foundations of which were laid to provide for the addition of two more floors. Provision is also made for cold storage, an essential to the marketing of eggs. The internal fittings will permit of the most economic handling of the commodity, and, at the same time, give employees the maximum degree of comfort.

During the year small consignments of dressed poultry were shipped to Great Britain. Birds that are choice and young met with a ready demand at prices comparable with our local markets, but as the majority of birds exported were old, culled hens, collectively the trade was not satisfactory. However, the removal from our local market during the period of the year when this class of bird is being disposed of in numbers greater than our capacity to consume has the effect of firming values.

There are nine egg-laying competitions being conducted under departmental supervision, one each in Toowoomba, Wynnum, Brisbane, Gympie, Childers, Bundaberg, Townsville, and two in Maryborough. These tests are organised and conducted by district poultry clubs. In the fifty weeks' tests ending March, 1936, there were six birds which laid over 300 eggs.

The more thickly poultry-populated districts of the State, from Stanthorpe to Cairns, were visited during the year by an officer of this Branch for the purpose of instruction of breeders, when in any district as many individual farms as possible are inspected, field days conducted, and evening lectures given.

A class for the instruction of judges was organised during the year by the National Utility Poultry Breeders' Association, and conducted by officers of this Branch with the assistance of one of the well-known judges. There were thirty students, and at no lecture was there less than twenty-five in attendance. Among the students numbered many of our largest farmers. The course consisted of fourteen lectures at night, and several field days. The interest displayed by all was so keen that the work was extended with the object of making better breeders as well as judges.

It is difficult to estimate the beneficial results that may accrue from the course, but the interest displayed suggests the desirability of extending the work to country centres, and the conducting of further courses during the coming year.

Close touch has been kept between the officers of the Branch and the Animal Health Station on all questions of disease and parasitical infestation of poultry.

The Poultry Advisory Committee, comprising representatives of the University of Queensland, Poultry Food Manufacturers, the Egg Board, and this Department, have not met as frequently as in past years, due to the completion of the nutrition experiments that were planned and conducted at the Animal Health Station.

The completion of the series of nutrition experiments to ascertain the desirable protein level to feed laying hens took place this year. The breeds used were the Australrop, a medium-weight dual-purpose fowl, and the light Sussex, a heavy-weight breed. The birds used in both tests were purchased as day-old chickens and reared at the station.

AUSTRALORP.

In this series, 127 birds were used. They were divided into three groups as equal as possible for development. Each group was housed and managed in a similar manner with the exception of difference in the ration, the outstanding feature of which was the crude protein content. The rations used in this and similar tests will be referred to as low protein, intermediate protein, and high protein, and consisted of the following ingredients:—

Constituents.	Low Protein.	Intermediate Protein.	High Protein.
	%	%	%
Maize Meal	57	54	51
Bran	19	18	17
Pollard	9½	9	8½
Lucerne Meal ..	9½	9	8½
Meat and Bone Meal	3½	7	10½
Linseed Meal ..	1½	3	4½
Salt	1	1	1
Crude Protein content of Ration	14	16	18

The birds in the test were fed upon the all mash system, and received in addition to the above shell grit, earth, and water *ad. lib.*

The following table shows the average production, weight of eggs, and food costs per birds, also cost per dozen eggs for each group:—

—	Low Protein.	Inter-Protein.	High Protein.
Average production per bird	195·6 eggs	196·4 eggs	194·0 eggs
Average food costs per bird	101·5 pence	98·6 pence	100·2 pence
Average weight of egg	2·01 oz.	2·03 oz.	2·05 oz.
Food costs per dozen eggs	6·192 pence	6·036 pence	6·192 pence

The foregoing does not suggest any significant difference in the average production or weight of egg. Theoretically, the low protein ration should have proved the cheapest method of feeding. The records do not show this, however. Wastage that is imperceptible may have been responsible for the increased cost.

During the progress of the experiment it was recorded that the birds fed upon the intermediate protein ration were better in plumage. Further, the mortality in this group was the lowest.

LIGHT SUSSEX.

Two groups were used in this test. They were fed and managed similarly to the Australorps—one group receiving the low protein ration and one the intermediate ration.

From the following table the results of this test can be shown:—

—	Low Protein.	Inter-Protein.
Average production per bird	165·2 eggs	149·5 eggs
Average food cost per bird	106·3 pence	102·7 pence
Average weight of egg	1·92 oz.	1·97 oz.
Average food cost per dozen eggs	7·99 pence	8·23 pence

The increased production in the low protein ration is probably due to the better laying ability of the birds in this group rather than to the ration.

The foregoing test completed the series that were planned to ascertain the desirable protein level that should be fed to poultry, and it is now possible to state with some degree of confidence.

1. (1) Chickens from day-old to the age of eight to ten weeks require from 18 to 20 per cent. of crude protein in their ration;
2. (2) Chickens from ten weeks to maturity require approximately 15 per cent. of crude protein; and
3. (3) That there does not appear to be any material advantage in feeding laying hens protein in excess of approximately 14 per cent. Further, that a ration with a crude protein content much in excess of 14 per cent. appears detrimental to the best health of the birds.

The sale of day-old chicks by many of our larger hatcheries is now an accepted practice. When this custom was first introduced it was found necessary to import a Japanese to do the sexing, and, although a Japanese is being used by some breeders this year, it is pleasing to be able to report that a good deal of the work is being done by Australians.

During the past three years classes have been conducted by the Japanese experts. Many Queenslanders have taken advantage of the course of instruction, some of whom are now practising.

REPORT OF THE DIRECTOR OF COTTON CULTURE.

The results obtained from cotton growing during the period under review, when considered from the aspect of average yield produced per acre, have to be classed as unsatisfactory, due to a variety of causes. The progress made in the development of the industry as a whole must be described as reasonably satisfactory, however, and had a slightly better average yield been obtained a definite advance all round could be recorded.

The Tariff Bill tabled by the Commonwealth Government for the purpose of bringing about an expansion of the Australian market, which was mentioned in the Report for 1934-35, was passed by the Federal Parliament during this present season. A marked expansion of business for the spinners has occurred since the tabling of the Tariff Bill, and it would appear that this increase of Australian market will be maintained and even increased during the coming season. It is unfortunate, therefore, that a reduction in yield has occurred in this crop, as it will necessitate the importation of cotton of a type produced in this State that could have been supplied had more favourable conditions been experienced.

The Commonwealth Bank has again financed the industry along the same lines as were formulated last season under the new scheme of payment to the grower on the basis of lint rather than seed cotton. This system has worked very satisfactorily during both seasons, and has placed this phase of the industry on sound lines.

Loans under the Cotton Production Relief Fund were again made to necessitous farmers and share-farmers by the Department of Labour and Industry—two officers of the Cotton Section continuing the work of inspections, &c., in the field in the Upper and Central Burnett districts. The value of cotton-growing as a means of assisting in relieving the unemployment problem has again been conclusively shown, and undoubtedly if this industry is developed to its fullest possibilities a marked improvement in the economic structure of many districts of the State will be effected.

DIVISIONAL RESULTS.

The results obtained as a whole amply demonstrated the value of preparing the seed beds in time to take advantage of the first good planting rains occurring after the end of September. In all the main cotton districts, those farmers who had their land ready were able to obtain good strikes on two separate rain groups in October. From then on no rains of any consequence occurred in the Central district, where the bulk of the acreage is generally planted, until the latter part of December. Growers with either late-prepared seed beds or late-burned newly fallen scrub areas were therefore unable to get their crops to a stand until around the first of January, which date experiences of past years have indicated to be at least two months late for satisfactory yields to be produced. In the districts south of the Callide Valley, although November was dry generally, good storm rains were experienced at mid-December, which assisted the earlier planted crops and allowed of the completion of the planting of any late-prepared seed beds. The crop was thus rather backward at mid-season.

Rather severe shedding occurred on the earliest sown crops during the first week of January, but good rains starting then improved the situation greatly, and by the end of that month crop prospects were fairly favourable. Further adverse conditions in February, followed by excessive wet in the Central district and extremely dry conditions in the areas south of there, checked crop progress and reduced yields most severely in all districts.

The following table of rainfall recordings is included to illustrate the nature of the season experienced :—

MONTHLY RAINFALL.
1st July, 1935, to 30th June, 1936.
(In 100ths of an Inch).

Station.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March.	April.	May.	June.	Total.
Boonah	1·34	0·20	3·99	7·35	0·24	4·67	3·93	0·55	3·42	0·46	1·14	1·76	29·05
Kalbar	1·24	0·21	5·02	5·77	0·29	4·32	3·47	0·27	3·48	0·36	1·69	1·93	28·05
Laidley	1·89	0·44	2·67	4·13	0·23	5·48	3·99	1·88	2·60	0·16	0·94	1·50	25·91
Gatton	1·71	0·43	2·95	2·56	0·23	6·26	6·23	1·73	3·47	0·18	0·44	1·79	27·98
Lowood	2·30	1·02	3·48	3·57	0·43	5·45	4·04	0·85	3·31	0·9	0·74	1·69	26·97
Murgon	1·23	1·08	3·22	2·47	0·23	4·48	3·67	1·18	3·52	0·38	1·40	2·24	25·10
Gayndah	2·21	0·83	2·01	2·20	0·5	6·19	5·78	0·87	2·49	0·25	1·91	3·07	27·86
Eidsvold	3·56	1·82	3·08	3·22	..	3·86	6·42	1·47	1·87	0·12	0·61	3·00	29·03
Camboon	4·07	1·43	1·54	2·88	..	3·92	4·64	3·61	2·59	0·10	1·01	2·48	28·27
Many Peaks	5·98	1·47	1·82	0·96	..	4·36	3·08	1·90	4·20	0·08	1·62	4·14	29·61
Mount Larcom ..	7·35	0·79	2·16	0·17	0·22	4·21	5·81	3·14	5·06	0·34	2·16	5·25	36·66
Rockhampton	4·28	0·52	1·42	0·74	0·07	5·85	5·98	4·69	5·10	0·20	1·06	4·67	34·58
Westwood	4·71	0·67	1·15	0·63	0·15	3·06	5·74	3·33	2·64	0·12	1·83	2·93	26·96
Wowan	3·94	0·95	1·92	1·26	0·20	5·21	7·21	2·80	3·32	0·09	1·84	2·49	31·23
Biloela	3·51	1·80	2·41	2·41	0·19	1·96	6·66	4·44	5·95	0·04	1·30	2·61	33·28

STANDARD OF CULTIVATION.

The standard of cultivation during the first half of the season was most satisfactory, generally speaking, and many farmers "laid by" their crop at the last cultivation in a very clean condition. The showery weather experienced during the latter half of January, however, promoted excessive weed growth on all the old cultivations, and in the districts experiencing further rainfall in March many such fields became nearly overgrown as the cotton was too tall to cultivate. Markedly less weed growth developed on the newer cultivations or where cotton followed newly broken-up grassland, and undoubtedly farmers can materially reduce the cost of cultivation of a cotton crop, as well as improve the yield, by practising growing cotton in rotation with grass sowings of three or four years' establishment.

CROP YIELDS.

A total of 13,752,323 lb. of seed cotton was received at the ginneries by the 19th June. This is a marked reduction compared with the last two seasons, and portrays clearly the seasonal conditions, for by the end of June 3,252 growers reported 60,734 acres as having crop possibilities for the season, as compared with 3,139 growers and 56,682 acres for the previous season. Very clearcut evidence was again obtained as to the merits of planting cotton on either newly broken-up virgin country or old cultivation that had been under grass for several seasons. Gains ranging up to 700 lb. seed cotton per acre were reported, and, generally speaking, some improvement was obtained by most farmers who tried out this idea, except where the crop was planted late. Undoubtedly all cotton-growers would be well advised to institute a cotton-grassland rotation whereby cotton is planted only on cultivation in either the first, second, or third year following grassland of at least three years' establishment. Such a rotation would not only improve cotton yields over a series of years and reduce cost of cultivation, but would provide pastures of definitely superior quality and production.

QUALITY OF THE CROP.

The quality of the crop has naturally been affected by the adverse seasonal conditions, a much higher percentage of cotton being graded as softer cotton than usual. Investigations of the results obtained from the newer cultivations where thinning was practised indicated that decided improvement of grades was obtained by such practices as compared with fields where the plants were left unthinned on the old cultivations. Thinning tests over a series of seasons have also indicated that either unthinned or the closer spaced cotton tends to produce inferior lint in seasons of adversity.

COTTON RESEARCH STATION.

The results obtained at the Cotton Research Station have again confirmed the conclusions arrived at in previous years, and may be summarized as follows:—

1. Every effort should be made to obtain a well-prepared seed bed in time to plant following the first good rains after the latter part of September. Approximately 500 lb. of seed cotton per acre was averaged over the October plantings this season as compared to absolute failure in December plantings.
2. Yields decline with successive years of cotton planting after the third or fourth season following the breaking-up of grassland. Plantings on first and fourth seasons after grassland ranged from 800 to 1,000 lb of seed cotton per acre as compared with averages of 662 lb. for seventh year and 454 lb. for the eleventh year of successive cotton crops.
3. Substantially better penetration of moisture through the first foot of soil is obtained in the newer cultivations. Soil moisture determinations made fortnightly through the season amongst growing cotton crops in new and eleven-year-old cultivation, indicated a difference in moisture content in favour of the former equivalent to at least an inch of rain during most of the mid-season.
4. The nitrate-nitrogen content of the old alluvial cultivations increased during the showery mid-seasonal conditions to an entirely unsuitable level for profitable cotton production. Fortnightly determinations in eleven-year-old cultivation which has grown mostly successive crops of cotton indicated that during the mid-seasonal critical period of plant development the nitrate content rose to the outstanding level of 45 parts per million parts of soil in the upper 6 inches of soil, and was above twenty-five parts per million for over a month. Through this period the plants made very rapid vegetative growth that later reacted most severely to adverse climatic conditions, corn-ear worm attack, and a severe infestation of the leaf-sucking jassid. Yields of only 100 to 500 lb. of seed cotton per acre were obtained in October plantings on such soils, whereas on nearby plots of new cultivation yields around 1,000 lb. of seed cotton per acre were obtained from the same variety. December plantings on the old cultivation were so badly attacked by insect pests that no crop was produced.

PURE SEED OPERATIONS.

Satisfactory progress was made during the season in regard to determining the most suitable varieties for the various soil types in the different districts, and developing supplies of planting seed of the same. The Lone Star variety has again given good results on the harder soils in many of the districts and is undoubtedly a very useful variety for a large number of growers. The newer strains of it developed in the breeding centre at Mundubbera have been increased satisfactorily, and during the coming season a comprehensive set of trials of strains of this variety will be carried out in the general Mundubbera district to ascertain the most suitable one for the different soil types in that area.

The Miller variety has again yielded well in the Central district and appears to have definite promise of being very suitable for much of the heavier and more fertile soils of that section.

As it has also done well in the Upper Burnett, South Burnett, and parts of the Southern district on similar soils, it may become one of the most important varieties of the State. Breeding centres of it have therefore been established in the Callide Valley and Upper Burnett districts.

The Half-and-Half variety has again yielded very satisfactorily in several districts considering the adverse conditions, and the demands for seed being received indicate it to be popular in the areas where it has been grown. Results obtained in varietal trials at the Cotton Research Station during the last two seasons tend to show that it is unsuitable for the conditions there.

Progress was also made in improving the Indio Acala variety, which is now the main cotton grown on the alluvials in the Callide Valley, most farmers preferring it to Durango on account of the higher lint percentage and slightly larger bolls. Indications were obtained in the varietal tests and several commercial plantings, however, that Ferguson, a quicker fruiting type, may be more suitable for much of the fertile alluvial soils. This is a shorter cotton, and if future tests indicate it to be heavier yielding the situation will be further improved in regard to producing more of the shorter cottons to meet the Australian spinners' requirements.

ADVISORY WORK.

The field staff has again had a very busy season in carrying out extension, advisory and experimental work. In some districts early in the season demonstrations of the methods of combating invasions of cutworm, corn-ear worm, and the web-spinner larvæ assisted growers in saving their crops. Meetings and farm-to-farm visits were carried out during the season to bring to the attention of growers the various findings and results obtained in experiments and observational tests, and undoubtedly appreciable progress is being made along these lines, particularly with reference to growers practising the cotton-grassland rotation, and also becoming more conversant with the broader fundamental principles of successful cotton-growing.

GRADING.

The Government graders have again graded the seed cotton as it arrives at the ginneries and the resultant lint obtained in the ginning processes. The system of grading the seed cotton against the Universal Standards for lint having proved so satisfactory in the previous season, it was again used, and undoubtedly is of decided value to the industry. In addition to the ordinary grading, the system of selling certain qualities of lint against type samples was instituted this season, which has called for even more exacting work from the graders.

INSECT PESTS AND DISEASES.

The season has been one in which rather serious insect attacks were experienced in all districts except the Central Burnett. In the early season migrations of larvæ of the web-spinner, cutworm, and corn-ear worm occurred in many fields in the Central district and Upper Burnett, particularly on old cultivations where late ploughings of weedy fields were made just ahead of the October planting rains. In December heavy outbreaks of Rutherglen bug did damage to a varying extent in all districts except the general Mundubbera section of the Central Burnett. Jassids also started to appear and continued increasing in numbers for the rest of the season, eventually developing into the worst attack that has been experienced in most of the Callide Valley, much of the Upper Burnett, and parts of the Southern district. Although severe damage was caused by corn-ear worm in many parts of the Callide Valley, particularly in late-planted fields, the jassids undoubtedly caused heavy losses in many crops on the older cultivations, where the remarkable amount of cloudy showery weather that occurred through most of the first three weeks in March tended to make sappy, rankish vegetative development of plants, even in October plantings. By the end of April the foliage in most fields was brown and withered as a result of the attack, as if badly frosted, and as frosts did not occur until mid-June the loss of crop brought about by such a checking in plant development was of large magnitude.

The light spotting of lint described in the last Report has again been experienced this season, necessitating a large amount of good sound cotton having to be placed in the "light spotted" grades. An experiment carried out at the Research Station for the Pathologist, Mr. Morwood, demonstrated that primary infection of the seed with angular leaf spot was controlled by dusting the seed with cerosan, but later in the season all plots became equally infected. Further investigations will be carried out in the coming season in an endeavour to reduce the losses caused by the spotting of the cotton.

PUBLICATIONS.

The following articles on cotton-growing were published in the "Queensland Agricultural Journal" during the financial year:—

Cotton Rotations. W. G. Wells; August, 1935.

Cotton Planting. R. W. Peters; October, 1935.

Cultivation of Cotton. R. W. Peters; November; 1935.

Thinning and Spacing of Cotton. W. G. Wells; November, 1935.

The Annual Report of the Cotton Research Station, by W. G. Wells, L. M. Hodge, and W. A. R. Cowdry, was again submitted for publication in the Annual Report of Experiment Stations, by the Empire Cotton Growing Corporation.

ACKNOWLEDGMENTS.

The Principal of the Queensland Agricultural High School and College has again provided facilities for breeding plots of different varieties of cotton being developed for the Southern district.

The Agricultural Chemist and various members of his staff have once more carried out analyses of a large number of grass and soil samples, and soil moisture and nitrate determinations of a voluminous number of soil samples. This work has been of the greatest assistance in helping to explain many of the problems that have arisen in the different districts.

W. G. WELLS, Director of Cotton Culture.

REPORT OF THE DIRECTOR OF FRUIT CULTURE.

The outlook for the fruit industry generally in Queensland has improved greatly during the past year, and it is recorded confidently that prospects were never more encouraging. The market for practically all kinds of fruit is expanding upon a solid foundation. This is attributable largely to the State's advanced marketing legislation, which has been instrumental in the provision of large cannery outlets and the solution of some of the problems of distribution. Pineapples, papaws, passion fruit, avocados, Queensland nuts, strawberries, and other fruits are all in short supply. Increased quantities of pineapples, papaws, passion fruit, and strawberries are being sought by factories; avocados are netting growers a return of 14s. per half-bushel case on southern markets; orders from fresh sources are coming to hand for up to half a ton of Queensland nuts per month, but we cannot supply the requirements.

With the growth of the industry, the need for scientific investigation of the cultural aspect of our fruits is becoming increasingly apparent. It has often been remarked that Queensland is capable of producing any kind of fruit grown in the world. Such a statement is not far wide of the truth. We produce many kinds of fruit. and because this is such a remarkably fertile State we produce them well, but the question arises: Do we produce them as well as they are capable of being produced? The optimum conditions for growth of the various fruits have never been determined scientifically in Queensland. The same cultural advice as was given to orchardists when fruitgrowing was first started in this State is still being offered, with, in some instances, slight modifications. This advice is founded on the experience of other countries, and while it served its purpose for the time being, the fruit industry is now occupying such an important place in our national economy that, in common with other agricultural enterprises, it requires that the very utmost shall be returned per acre through the application of proper cultural methods to compensate for the time and labour expended.

A more illustrative instance of the need for scientific research in fruit production could not be put forward than that of pineapple-growing. Previously the application of lime to the soil for pineapples was considered advisable; the need for wide row planting was stressed; while plant selection was not considered as being of especial importance. To-day, as a result of research, there is a complete reversal of these recommendations. Liming has been found to be distinctly detrimental, and the application of sulphur to produce an acid soil is now recommended. Narrow row planting is now considered beneficial to the soil and ensures greater yield of fruit, while plant selection is regarded as most important for maximum production of the best fruit. To what extent the advice tendered to growers of other kinds of fruits needs modifying can be determined only by local scientific investigations. Certain it is that we know of many physiological disorders from which they suffer, and the correction of which would enhance their edible and consequently market value.

Soil conditions are naturally bound up intimately with successful fruit production, and here again scope is provided for much investigation. Erosion is undoubtedly one of the most serious factors responsible for comparatively rapid deterioration in orchards, particularly in coastal districts which are so subject to torrential downpours. It is not an uncommon sight on hillside orchards to find the trees at the bottom silted up to a depth of 2 feet and more, while the trees at the top are growing on bare subsoil. The mere laying-down of contour drains is not a practicable means of eliminating the trouble in established orchards. How best, then, to overcome the difficulty is a matter for thoughtful experiment.

In the Stanthorpe district the low bearing capacity of the apple trees has always been a problem for which a solution has not yet been found. It has always been claimed that the wrong root was in use, and several years ago an experimentalist was put to work to endeavour to evolve a more suitable stock. His field is now a fairly wide one, and incorporates both promising stocks of local origin and imported stocks from East Malling. Another possible reason for the trouble put forward quite recently is that Stanthorpe soils may be deficient in certain available mineral elements necessary for the production of large, vigorous trees and big crops.

It has been made possible, under the Commonwealth Grant for Research into apple and pear problems, for a scientific officer to investigate this aspect.

Throughout the year weather conditions have been variable, although favourable generally to fruitgrowers. Stanthorpe experienced early one of the best seasonal years for some time, but hail and dry weather later reduced the yield. Conditions on the South Coast and near North Coast were excellent in the spring, but, later, dry summer weather retarded production of much first-class fruit. The Central district to Townsville was dry, but at Cairns good rains were experienced.

BANANAS.

The problem of low prices in the banana industry arising from unrestricted planting in Queensland and New South Wales several years ago, and consequent over-production, has been overcome partially by a natural process of elimination of unsuitable plantations. Nearly 5,000 acres of neglected banana plants have been destroyed during the past year, while less than 2,000 acres were planted. The area now within the State has been reduced therefore from 20,000 acres to 16,000 acres. It is estimated that about 6,000 acres more will be destroyed during the ensuing twelve months and approximately 3,000 acres planted, so that Queensland's production will soon be about back to normal. In New South Wales a similar state of affairs exists. Out of an aggregate of 20,400 acres a year ago, 5,000 acres have been destroyed, and only 1,200 acres planted, leaving a total now of 16,600 acres. During the next twelve months it is anticipated that the area going out of production will be even greater than that in Queensland, and this will bring production back to normal also in that State. Summed up, this means that during 1937 the industry should be as solid economically as ever it was.

It is significant of returning prosperity to the industry that, with the advent of the 1936 winter, returns to the grower took a sharp upward trend and have been maintained for several months. It is not likely in the future that prices will ever fall so low as during the past two summers.

As a consequence of the strong competition of New South Wales growers on southern markets, Queensland growers were forced to concentrate on the stimulation of trade within the State. This effort has resulted in a much greater local consumption, so much so that interstate consignments have diminished to an extraordinary extent in two years. Additional ripening chambers have been provided at Gympie and Rockhampton, and the improvement in the quality of the bananas in these and other towns has greatly enhanced their sale.

A serious recurrence of bunchy top disease in South Coast districts and the Northern Rivers of New South Wales has given cause for concern as to the immediate future of plantations in the affected localities. Foreseeing the likelihood of a greater spread of the disease during the summer of 1936-37, strenuous efforts have been made since the beginning of the year to have all neglected plantations in Queensland destroyed by the end of August, 1936, and the remaining commercial areas placed in proper cultural order. Approximately 1,000 acres were in need of eradication between Brisbane and the border in January, and, by reason of the fact that many of the owners were in straitened financial circumstances, the task of eradication in eight months seemed an impossible one. The thanks of the whole industry are, however, due to a sympathetic Government, which, realising the national importance of the industry to the State and the position of jeopardy in which it was placed, sanctioned a scheme propounded by the Department for the employment of intermittent relief men in the destruction of diseased groves. In this way a large acreage has been covered in the Currumbin, Tallebudgera, and Nerang districts, where eradication gangs are still working. Apart from the actual acreage destroyed, the fact that the Government was ready to help acted as a fillip as well as an example to the better-placed growers.

In his report the Chief Inspector of the Banana Industry Protection Board states that it is his opinion, as a result of close personal contact with all phases of the industry, that better times for banana-growers are in prospect. In disease control growers are co-operating practically with departmental officers. Bunchy top, beetle borer, thrips, and leaf spot are diseases and pests requiring constant attention. Culturally, the methods employed in the industry are yearly becoming more efficient. The benefits to be derived from green manuring, fertilizing, correct de-suckering, and prevention of soil wash are becoming more widely realised. Scientific ripening methods are now employed in almost every important marketing centre in Australia; to the grower this is most important.

Weather conditions were variable during the year. The absence of real summer rains was a setback to plantations on the North Coast, and was the cause of the marketing of a considerable quantity of small and some improperly matured fruit—a practice that tends to lower prices to the grower and lead to dissatisfaction among the customers of the retailer.

Considerable interest is being displayed by both producers and sellers in the departmental experiments with cluster packing and the introduction of a one-bushel case to replace the bulky one and a-half bushel at present in use. Investigations indicate that the method of cluster packing has certain advantages over the single pack. It also reduces by a considerable degree the susceptibility to black end and case-bruising. In regard to case experiments, the bushel case is easier to pack, is lighter and less subject to abuses in transport, the fruit is less likely to be bruised, and the lesser quantity in the case is very suitable for the small country order buyer and small shopkeeper.

Quality Grade Standards.—For several years the Departments of Agriculture in Queensland and New South Wales, in co-operation with the Council of Scientific and Industrial Research, have been carrying out experiments with the idea of improving transport and ripening conditions, and have been investigating disorders known as "squirter" and "rubber," which occur in fruit from some plantations at certain periods of the year. These investigations are almost wholly complete, and when finalised it is the expressed intention of all States to adopt quality grade standards based on the findings and designed to ensure the marketing only of really first-grade fruit.

BANANA INDUSTRY PROTECTION BOARD.

The Board continued to direct the policy of the industry during the year. For the purpose of efficient supervision, the State is divided into fourteen districts, each in charge of an agent or inspector of the Board working under the immediate direction of a senior inspector. The system ensures regular inspection of all plantations in Queensland. Particularly rigid control is exercised in the quarantine or buffer area, where, except in exceptional circumstances, planting is limited to 8 acres per grower. The planting policy is revised by the Board annually, and modified as required. By this means a careful supervision is maintained over the removal of suckers for planting from one district to another, and the risk of transference of diseases from one district to another is reduced to a minimum. The agents of the Board are carrying out their duties well, even though, particularly during the past year or two, these have often been difficult and unpleasant. Their objective of uniformity of better cultural methods must eventually lead to an efficient industry.

During the year it was, unfortunately, necessary to institute prosecutions against fifty growers—not many—for various breaches of the Acts, but as such proceedings often act as a warning to other growers, they are not without positive advantage.

PINEAPPLES.

Pineapple-growing shows greater promise of development than any other branch of the fruit industry. It possesses the advantages that it is capable of being canned, and that there is a market in the United Kingdom. Previously the difficulty in the way of extension was the fact that cost of production was so high that export required to be supported from the funds of the Sugar Industry Concession Committee and the advantage of a favourable exchange. The average production from Queensland plantations was 200 to 250 cases per acre. As the result of recent scientific research, it has been demonstrated that plantations can be made to at least double their acreage production. As a matter of fact, one grower on the near North Coast has an estimated production for his winter crop alone of 2,000 cases from an acre and two-thirds. Such an enormous acreage increase in production with a comparatively small increase in outlay must necessarily have a tremendously favourable bearing on the industry, and tend greatly towards making export independent of outside financial assistance. There is unlimited land for expansion, and there is apparently no need to fear for an overseas market. The former manager of the Committee of Direction of Fruit Marketing visited the United Kingdom in the course of the year, and was able to make very satisfactory contracts for the sale of canned pineapples, and this on our low production rate. How much more easy must it be to arrange a market when the present recommended modern methods of cultivation are adopted and the cost of production lowered? A contract with a big firm of distributors in England was entered into, and in his report to the Committee of Direction the former manager stated, *inter alia*: "With the big outlet provided by the D.B.C. contract, a stimulus to production, instead of being feared, would be very desirable. This contract could absorb at least 400,000 dozen 16-oz. cans per year, and could probably be increased to 1,000,000 dozen if the fruit be available." It would be disastrous, of course, to advocate doubling our output in one year or two years, but a gradual and steady increase is justified as the worth of Queensland canned pineapple becomes known and the market develops.

CITRUS.

With the exception that better prices have been realised, the position of the citrus industry remains about the same. The room for development in Queensland is very limited at present. As mentioned in my last Annual Report, citrus throughout the Commonwealth is largely overproduced, and Queensland naturally must absorb portion of the southern surplus. Further attempts have been made to open the New Zealand market, but the embargo still remains. Older established orchards on the coast—due to soil erosion and greater exposure to winds, &c., as the country is opened up—are gradually dying out. Although some new planting is taking place, the commercial acreage is reducing annually. Considerable expansion is taking place however in the Gayndah district, from which excellent fruit is being marketed. A noteworthy feature is that quite a lot of grape fruit trees have been planted, and there will soon be a ready supply on the market.

To aid export during the last crop, the Commonwealth legislated for a bounty of 2s. per case on all oranges exported to Great Britain. Previously a guarantee to the exporter of 13s. per case was provided, but it is believed the alteration of the incidence of the assistance was justified in view of the fact that a guaranteed price does not provide an incentive to an improvement of the quality of the oversea consignments as would the bounty. In the latter case, the exporter must rely for success largely on the result of the sale of his product; consequently, he must see that only good-quality fruit is shipped.

THE GRANITE BELT.

The Instructor in Fruit Culture in the Stanthorpe district reports that the tonnage of fruit and vegetables leaving the district was slightly lower than that of last season—about 300 tons —but that was entirely due to unfavourable climatic conditions in the shape of hail and a dry season.

Once again hail, unfortunately, did a considerable amount of damage, and, to make it worse, a lot of growers whose orchards were damaged last season suffered again this year. This has been a very severe blow to many efficient orchardists. They have suffered so severely financially that they have not been able to give their trees the necessary attention as regards fertilizers and the control of pests and diseases, such as codling moth and powdery mildew. These growers are deserving of the most sympathetic consideration, as their present financial position is due to circumstances beyond their control.

Rainfall.—Although the district experienced a very dry late period—the rainfall only being 23 inches, as against an average of 30 inches over the last sixty years—the orchards have not suffered beyond recovery. Through sound orchard practice the district has produced good crops and demonstrated the remarkable moisture-retaining properties of the Stanthorpe soil.

The prices for apples of good quality have been better than last year, more especially towards the end of the season, and the crop was of good average quantity.

The quality of the stone fruit crop was up to standard, except in cases of over-cropping and neglect of cultivation during the dry period, and in which the fruit was pinched and on the small side. The prices for all stone fruits of good quality were very good. Although the grape crop was not heavy, the fruit was of excellent quality and the bunches well filled. The dry, warm weather experienced during the blossom period helped in the setting of the fruit, and varieties that are usually subject to "hen and chickens" were remarkably free from this trouble, the bunches being of good weight and the loss from snipping slight in comparison with other years.

The prices for grapes were, generally, considered sound throughout the season, and at the close they were excellent, Cornichons and Waltham Cross realising from 12s. to 14s. a case. These prices, no doubt, acted as an inducement to southern growers to send to the Brisbane market, and some 2,000 cases, chiefly Purple

Cornichons, were placed on the Queensland market from the Murrumbidgee irrigation area. It is noteworthy, however, that they sold at from 4s. to 5s. under the Stanthorpe fruit of the same variety.

As a trial shipment to London to test the market, 173 cases of Black Muscats were sent through the C.O.D., and although the results cannot be regarded as entirely satisfactory, yet valuable information has been acquired which will be availed of next season.

This season, luckily, there was very little fruit fly—in fact, generally, it was conspicuous by its absence. At times there were invasions which looked ominous at isolated points, but they were dealt with promptly and prevented from spreading.

Codling moth has been worse than for many years; the same applied this season all over Australia. It is noted that the Victorian Government is spending a large sum of money on codling moth control next season, and their findings will benefit this State also. Codling moth should be controllable, and most of the infestation this year is attributable to the hail visitation of the previous year. After severe hail such as was experienced, adequate spraying is, perforce, neglected. If necessary, precautions are taken, and with the use of chemically-treated bandages there is no apparent reason why this pest should not be kept within reasonable bounds.

Brown rot always follows hail damage at Stanthorpe, as in every quarter of the globe where fruit is grown. Here, however, there is an advantage inasmuch as only the stone fruits are affected, and not the apples, as happens in England and elsewhere.

Powdery mildew of the apple is still a matter of concern, but is responding to treatment and is not the menace of a few years ago.

Grape diseases such as oidium and downy mildew have been practically non-existent this season, owing to the dry weather conditions. Nature has been particularly kind to the grape-growers, excepting to the few that were unlucky enough to be hit by hail.

Plum spot (*Bacterium pruni*) and little leaf or rosette of the apple are, as twelve months ago, the major problems as regards disease in the district. Efforts are being made to discover definite control measures.

Packing and General "Get up" of the Fruit.—It is admitted freely in the Brisbane markets that the packing and general "get up" of the Stanthorpe fruit is superior to that of any other district in the Commonwealth which sends deciduous fruits to the Brisbane markets. There is, however, still a small number of growers who will not do the fair thing, and it seems impossible to teach them, either by instruction or the poor prices they obtain for their fruit compared with others. Time must eliminate them.

Immature and Undersized Fruit.—There is definite improvement as regards the marketing of immature and undersized fruit which does not conform to the grade standards, although there are still some growers who persist in offending. Condemnation of their fruit is the only remedy.

Export.—There has been a bigger apple export this season than last—25,700 cases, as against 8,000. But for the hail damage there would have been in the vicinity of 50,000 cases exported, as much as, or more than the peak year of 1933-34, when 48,000 cases were exported.

Four Sydney firms, as well as the C.O.D., were buyers of Stanthorpe fruit, and acting as agents for export on consignments, but were unable to get anything like their requirements. The prices realised, although fair, were somewhat disappointing to most of the growers, as they were led to believe from various sources that the market would be bare in the United Kingdom and extraordinary prices would be realised.

This season, for the first time, comments have been received concerning the Queensland consignments individually. Previously, Queensland fruit has been bracketed with that of other States. These comments show that our export fruit compares quite favourably with that of the other States. The packing and "get-up" of the fruit has been commented on favourably, and advice as regards the best sizes to export will be availed of next season.

A lot has been said about the maturity of the Granny Smith apples at the time of export. This year it was agreed between the Department, growers, and exporters that with the early shipments Granny Smiths under 2⅝ inches in size should not be exported, and, from the reports received, this decision was wise, and no complaints have been received as to immaturity.

Although the export of 50,000 cases of apples, say, from the Stanthorpe district must enhance the prices in Queensland for Stanthorpe fruit at the time of export, it is not considered that a large export will necessarily bring about the best possible returns for apple-growers. More use should be made of cold storage for the four main varieties—Granny Smith, Jonathans, Delicious, and Dunns—more especially the Jonathans and Delicious. If all the Jonathans and Delicious exported this season had been placed in cool store and offered judiciously for sale, they would have realised better prices than those obtained by export.

The country distribution scheme propounded by the Minister in co-operation with the C.O.D. and the Railway Department, and its efficient advertising, has taken Stanthorpe fruit throughout Queensland, including places where it had never been seen before. By the end of April, however, the Stanthorpe crop has been disposed of, and Queensland consumers have to get their requirements from other States. This should not be, for by cool-storing our season could be extended another four months at least.

It is admitted that although our climatic conditions produce the best Granny Smith apples in the world, yet the life of our Jonathans and Delicious is not so long in cold store as those of other parts. They can, however, be kept quite long enough to make it well worth while to use them for country distribution. As much care would, of course, have to be taken in the selection of apples for cold storage as for export. At the present time there is one cool store in the district—that of Mr. Archibald, at Pozieres—and he has demonstrated that it is a paying proposition. It is hoped that several plants, either individual or co-operative, will be erected in the district in the near future. Several small plants are favoured rather than one large cool store for the district, as in practice it is believed they will prove more economical and easier to handle.

Vegetable Growers.—The vegetable growers throughout the season have, generally, not had a prosperous time, on account of drought and low prices. Early tomatoes and beans returned excellent prices, and cabbage also, but, unfortunately, these prices were not maintained for any length of time. With late tomatoes, the prices were very low; the quality of the fruit was in most cases never better, but glut prices ruled for twelve weeks, and the returns were the lowest for several years.

The last two dry seasons have shown a number of growers that fruitgrowing is more profitable than vegetables, and that, where circumstances permit, it pays better to concentrate on their trees—the extra attention to the trees being more profiable than the vegetable returns.

Fertilizers.—The apple crop production per tree is lower than that of other States. This is due chiefly to Stanthorpe soils being deficient in available plant foods. The soils in the Granite Belt soon become exhausted, and there is urgent need for experiment to determine the proper fertilizers to use and the quantities in conjunction with green manuring.

The stock problem is an important one, and the Council for Scientific and Industrial Research will no doubt evolve one suitable for the district. It must, however, be many years before the Council can speak with authority.

The crying need at the moment is to increase the production of the existing trees, and to keep them in a state of profitable production.

Green Manuring.—Considering the adverse weather, there are some very fine green crops in the district, which have only been possible through the growers taking advantage of every shower of rain.

Near North Coast and Gayndah Districts.

Citrus districts situated along the coastal country generally experienced early spring rains, and this, coupled with good cultural attention and the advent of warmer weather, augured well for an excellent setting of good crops. Unfortunately, a protracted dry period was responsible for a considerable shedding of fruits, which was further increased by an infestation of Rutherglen bug.

Light rains experienced during December were followed by hot, drying winds which caused a certain amount of scalding. Throughout the summer a sub-normal rainfall was experienced, but in most instances improved moisture conservation has been maintained and fairly satisfactory crops of good-quality fruit may be expected, although in some sections tree growth has suffered and fruit is backward and somewhat small.

The Gayndah district, in addition to spring rains, received useful showers during January, and again during March. Citrus trees have made satisfactory growth, and the fruit has developed rapidly.

The summer crop of lemons, although light, was of excellent quality, and very satisfactory prices were maintained throughout the season.

Early spring rains assisted the incidence of such fungus troubles as melanose, black spot, and pinking disease. Scale pests have been numerous, but control measures have been applied with satisfactory results. During January and February the green horned bug was active in the drier districts. The damage occasioned by this pest was, however, of little consequence. Fruit fly caused some losses in the early varieties.

An alarming feature in citrus orchards on the North Coast is the amount of soil-washing occurring where the trees are planted on definite slopes. In some instances the amount of deposit at the bottom of the orchards is 2 to 3 feet deep. There is no doubt that this is the main cause of the considerable deterioration which is taking place. Unfortunately, the problem of control is a difficult one on established properties, but an experiment has been commenced, in conjunction with the Departmental Experimentation Committee, on Mr. Renouf's orchard at Palmwoods, to ascertain if a modified system of contouring which will not unduly affect the growth of the trees or the cultivation will be effective.

Pineapples.—The recent stimulus given to pineapple production has resulted in increased areas on the near North Coast, and growers are keen to adopt the latest methods of cultivation advocated by the Department. The application of sulphur to the soil instead of lime has a marked beneficial effect on pineapple plantations, giving them a deep green, healthy appearance, and inducing a vigorous growth. Most growers now are using the 10-6-10 fertilizer mixture as recommended, and broadcasting it in the basal leaves of the plants in two dressings per annum at the rate of 5 cwt. each.

Closer planting also is being adopted in the new plantations, but, unfortunately, the shortage of planting material is limiting at present the amount of plant selection being practised. The summer crop during the year was a light one, but the winter crop promises to be an exceptionally heavy one, and factories will probably be running to capacity during the peak period.

Fertilizer trials to determine the relative merits of muriate and sulphate of potash are being continued.

Central Coast District.

The Senior Instructor in Fruit Culture reports that in the Central Coast district, although rainfall favoured the production of better fruit crops generally than was the case during the previous year, the occurrence of severe frosts during last winter caused heavy losses of fruit and destroyed completely many tomato areas in full bearing and affected seriously returns from banana plantations; consequently the aggregate production fell far short of earlier anticipations. Quality also suffered as a result of cold and hail damage; therefore monetary returns for products marketed were not as good as when seasonal conditions were not so harsh.

The aggregate rainfall for the year was 30·34 inches. November and April were the driest months, when only 7 points and 20 points respectively were registered. The highest registrations occurred from December to March, with an average of nearly 5½ inches.

Gradual extensions of areas, mainly in respect of pineapples, citrus, papaws, tomatoes, and grapes, have been noted, while the production of bananas has fallen off. There is a pleasing feature among growers to effect improvements in cultural matters, the control of disease, and the handling and marketing of their products. A keener appreciation of the value of displaying products and advertising is also manifest among growers.

Cultural.—As already indicated in the preceding paragraph, some improvement in respect of general orchard working has been achieved, but there are yet a number of properties where this does not apply. Reasonable allowance is, of course, made for tillage being deferred during certain seasons in areas so situated as to be liable to serious erosion. Growers are reminded continually of the importance of good cultural methods. It has been noted in pineapple plantations that the plough is used too deeply and is too frequently brought into too close proximity to the plant rows, and on this account much damage has been inflicted on the root systems at critical periods. Shallow surface working and less deep ploughing have been found to produce more satisfactory results.

In the citrus orchards green manuring is not practised as much as it should be, and rather too much reliance is placed on artificial fertilizers, without due consideration being given to the means for maintaining physical properties in the soil and promoting its capacity to retain moisture; consequently, results obtained from the former practice, in the absence of the latter, are not as successful as where both practices are combined.

Tomato-growing in the Ambrose, Mount Larcom, and Targinnie districts is conducted along somewhat unusual lines. The custom is not to plant on land which produced tomatoes the previous year, and new virgin scrub lands are cleared but not stumped each season. The presence of stumps and roots precludes the use of machinery, and cultivation consists of hand-hoeing. Only a few are growing good crops on older areas where conditions admit of cultivation with machinery.

As regards orchard hygiene, the standard generally is good, although there are yet a few growers who view this rather lightly and rely too much on haphazard methods in the fight against disease. It is aimed to effect further progress in this discretion, and thereby cause a reduction in the quantity of blemished fruit which at times is rather much in evidence.

The tendency with a section of growers to market fruit on the green side in order to obtain the first of the new season prices has lessened, but there are still a few who fail to realise the damaging influence this practice has on prices for the bulk of the crop.

The production of vegetables and truck crops is also indulged in by many fruitgrowers, and the local market is well supplied.

Dates.—In the course of the year attention was given to selecting and collecting a large number of date plants (offshoots), which were forwarded to Barcaldine for inclusion in the experimental area established outside that place.

Dates grow and fruit well in the Rockhampton district, but large bunches of fruit are singled out for attack by fruit fly about the time they attain their characteristic rich golden colour. Losses from this cause may be avoided by covering the fruit with parchment waterproof envelopes as a protection against insect damage.

Instructional.—More and more requests are being received yearly for advice on various matters, such as soil, locations, preparation of land, varieties, planting methods, drainage, soil erosion, propogation, top-working unprofitable trees, tillage, pruning and thinning, plant selection, fertilizing and green manuring, cause and effect, spraying and other forms of disease control, handling, packing, and marketing, and growers are appreciative of the departmental efforts to assist them.

Nurseries.—The number of nurseries registered in the district has increased from twenty-two to thirty-four.

Citrus.—Trees responded well generally to more favourable climatic conditions than those experienced during the previous year. In many cases cropping was, if anything, rather too heavy, resulting in a large proportion of the fruit being under normal size—more especially where thinning had not been done. A fair amount of blemished fruit as a consequence of black spot, melanose, and Maori mite occurred in orchards where the autumn spraying had been overlooked or else had been carried out carelessly. Fruit fly also accounted for losses in many orchards.

Seedling mandarins and oranges predominated in the local market, and as these mature throughout the district usually about the same period, slight gluts occurred during the season.

Grape fruit is becoming evident on the local market, but the earliest fruit is sent to interstate markets, with satisfactory results.

Pineapples.—Autumn conditions in 1935 were not favourable to a heavy winter crop, and much undersized fruit was marketed. The summer crop, however, was much better and the quality much improved.

Rough-leafed varieties, including Ripleys, Common, and Alexander, continue to hold pride of place with local growers, although the smooth-leafed variety is gradually becoming more evident. The best fruits of the Alexander variety, produced mainly in the Tanby district, are sent usually to southern and interstate markets. In the Gracemere district the Common Rough predominates, and the bulk of production from this area is sold on the Rockhampton market without packing. Subsequently, much of the best of this fruit is packed by wholesale traders and distributed throughout the Central-Western districts.

Hitherto growers have refrained from using fertilizers, but, consequent upon advice on the subject, there is now a marked tendency to take advantage of this means for the improvement of production and quality.

Tomatoes.—Interest in the culture of tomatoes on a commercial basis is displayed over an increasingly wide area in the Central district, and to centres such as Yarwun, Targinnie, Mount Larcom, and Ambrose the industry is of major importance; hence any influence affecting its welfare in these areas is viewed seriously. The visitation of Irish blight in June, 1934, was followed last season by severe frosts. In both seasons many areas in full bearing were destroyed completely, and the loss can only be described as disastrous. In a few cases where the plants were not killed completely and the soil conditions favoured new growth, some saving was effected by cutting back and encouraging young growth to come forward, which ultimately yielded light pickings of marketable fruit.

Planting distances adopted by growers average 7 feet each way, and, estimating on the basis of yield per plant, it is found that results obtained compared favourably with other tomato districts. In former times transplanting from seed-beds to the field was the vogue, but some growers now prefer to sow seed in position where the plants are to be grown, and subsequently thin to single sturdy plants. The leading varieties grown for Queensland and interstate markets are Marglobe, Break of Day, Pritchard, Red Mahio, and Early Winner. Marglobe is by far the most popular, it being claimed for this variety that it continues to produce a more even-sized marketable fruit for a longer period than others.

Corn ear worm and mites are the principal pests with which growers have to contend, and control measures are in the form of dusts.

Bananas.—As in the case of tomatoes, the conditions experienced last winter caused also much loss to banana-growers, and have been responsible for the aggregate production of bananas in the Central district falling rather rapidly.

The Byfield district is the principal region in respect of banana production, but new areas planted do not balance the areas going out of production each year. Many of the plantations are established on leased land, and when these cease to yield profitable returns difficulty will be experienced in obtaining suitable new land. On account of rust discoloration, local bananas are not the equal in appearance of imported bananas, and consequently the prices for the local product are not so good. Growers allege that, on this account, it is uneconomic to extend. Three competing floors, including the C.O.D., have recently installed sets of modern ripening rooms at Rockhampton. This has led to much better quality fruit being offered, and has increased sales. Almost the entire production of Central districts was sold formerly in bunches on the local market, but because bunches are not so suitable for modern ripeners, they must now be dehanded, graded, and packed into cases before being placed in the ripening rooms.

Mangoes.—Seedling varieties, which greatly predominate, behaved in accord with reputation this year. Mangoes yielded only a very light crop last season in succession to a heavy one in the 1934-35 season; consequently, consignments to southern markets were comparatively light, but prices obtained were very satisfactory.

Papaws.—Extensions in the areas under this fruit have been observed during the year, and further scope is afforded to meet increasing demand both for local and interstate trade.

The popular type grown is the Cowleyii, which in its present form appears to have assumed its shape from a combination of two originals introduced to North Queensland years ago, one of which was pear-shaped, while the other was distinctly oval.

In practice, some growers favour planting seed in hills, prepared where trees are to remain in the field, and later thinning out to one good plant. Others prefer raising plants in a seed-bed, and then transplanting to the field.

The principal pest which at times causes considerable losses is the peach moth. A virus disease, at present known as crinkle leaf, is encountered occasionally, and when this happens infected plants are removed and burned to prevent further distribution by insects.

Passion Fruit.—The present under-production of this fruit affords ample scope for enterprise, and it is noted that areas are increasing. Red spider is a serious pest of the passion vine in the Central district. This insect attacks vines, both young and old, with such virulence that death quickly follows, if there is any laxity in control measures.

Fruit fly has at times been responsible for much loss of fruit, but as invasions are more or less spasmodic, this pest is not viewed very seriously.

Brown spot is also present, but by reasonable attention to spraying at proper periods this trouble may be checked.

Grapes.—Rain falling during the winter favoured a better crop than the previous year. Quality was also much improved as a result of a better spring. Although early growth was a little backward, the fruit set well and the crop ripened rather later than usual. Some loss was suffered towards the end of the harvest through storms.

Variety selection is confined almost entirely to Black Muscat (Snows). The bulk of the crop is sold usually before Christmas, a fair proportion of which is sent to northern centres.

Miscellaneous Fruits.—Under this heading custard apples, strawberries, melons, rosellas, dates, and other minor fruits are included.

In consequence of more favourable conditions, larger quantities were available than during the previous year, and prices on the whole were better also.

The Bowen District.

During the latter months of 1935 weather conditions were very dry, and this fact affected the tomato crop adversely. Irrigation water was applied continually, but for the best results this needs to be attended by occasional rains. Tomatoes were consequently exported in lesser quantities than in the previous season, while the quality of the late railings was not up to the usual standard.

In the early months of 1936 heavy rains fell, up to 52 inches being registered, and this, although it was not welcomed by planters of very early crops, enhanced the prospects for the season generally.

Considerable activity is being shown by pineapple-growers, who are keen to increase the district's production and to have a local cannery established. Keen interest is being shown in the latest recommendations of the Department concerning production. The quality of the fruit produced during the year was good, but difficulty is being experienced in inducing some growers not to pick their early fruit before it is properly mature.

Mango exports were slightly less than in the previous season, but from the good orchards really first-class fruit was harvested at good prices. It is pleasing to note that the area planted with selected good varieties is increasing.

Growers of cucumbers, pumpkins, and egg fruit had a satisfactory year, although their crops generally were somewhat smaller than in the previous year. Large areas are being planted for the current season.

THE NORTHERN DISTRICT.

The Northern Instructor in Fruit Culture reports that the year was remarkable for very favourable climatic conditions from Cardwell northwards. South from there to Townsville the weather was very dry up to January, when, following on the abnormally dry summer of early 1935, severe drought conditions prevailed. Since then, however, the weather has been nearer normal, and fruit crops have made a good recovery.

Citrus.—These fruits still occupy the premier position in the Northern Division. Although plantings during recent years have been chiefly of worked trees, seedlings are still favoured by a number of growers. This is particularly the case with the Emperor mandarin, the seedling of which makes rapid and sturdy growth, and appears to be a consistently heavy cropper. It has, however, the disadvantage of being a tall grower, and this increases the cost of harvesting and pest control.

As a result of departmental contact, growers are showing a greater tendency to seek advice as to suitable varieties before making fresh plantings, thus saving themselves considerable disappointment and waste of time in experimenting with varieties which have already been found unsuitable, and, at the same time, laying a good foundation for any future co-operative marketing efforts which may be attempted by establishing standard varieties for the district.

This year's crop of fruit is a heavy one in all parts of the district, and with all classes of fruits. Cooktown, after a comparatively dull season last year, has produced a good crop. Cairns district orchards have put out good crops, the harvesting from which commenced with the early lemon crop in December. Harvesting is still in progress, and the latest of the oranges will probably not be picked before September. The Cardwell-Murray River district, as usual, is outstanding with its Emperor mandarins, the crop of which is good and the fruit uniform.

Unfortunately, the whole of North Queensland has suffered a severe attack from both the fruit fly and the fruit-sucking moth; consequently the crops have been considerably reduced.

Scale pests are fairly prevalent on the trees, but, as usual, parasitic fungi commenced their attack in the autumn and are now doing excellent work.

Pineapples.—These are produced over an extended period. The summer coastal crop is ripened between the months of October and January, and the winter crop during April and May. The Tableland summer crop extends to March, and the second crop to late in the winter. Development of pineapple-growing on the Tableland is necessary, however, before sufficient will be produced to supply even the Tableland markets fully.

The very dry weather in the Townsville portion of the district resulted in the summer crops in that area maturing quickly. At Magnetic Island the harvesting was practically completed in four weeks, and at Rollingstone it did not extend much longer.

Bananas.—The banana industry is now so restricted that even local markets are not fully supplied at all times.

Among Chinese growers there is a tendency to cut the fruit in a very immature state, and then practically cook it to ripen it. This practice produces very unattractive fruit and is earning a bad name for northern bananas among visitors to North Queensland.

Thrips have been active during the past summer, and a great quantity of fruit has been badly affected with rust. It is noticeable, however, that bananas grown on the Tablelands are remarkably clean and free from thrip damage.

During the autumn leaf spot again became fairly active.

Mangoes.—This year's crop was a good one in that part of the division north of Innisfail. In the Townsville part of the area, however, the size of fruit was affected adversely by the dry conditions.

The earliest fruit on the Cairns market were forwarded from the Mungana district in late October, and fruit continued plentiful until late January. During February heavy crops of green fruit were noticed still hanging on trees in the Irvinebank district. These would probably have been harvested in March, so that the season for North Queensland may be regarded as extending from October to March.

Several mango varieties of outstanding quality have been located, and these have been marked and listed as varieties worthy of propagation. They are—

1. "Papaw"—A large fruit weighing about 1¼ lb., having a dull yellow skin suffused with red, and thickly dotted with light-yellow points; flesh orange-yellow.

2. "Banana"—A bright golden yellow fruit weighing up to about ½ lb., with light-yellow flesh.

3. "Custard"—A uniformly golden-yellow fruit over ½ lb. in weight, with bright reddish-yellow and very juicy flesh.

4. "Cherry"—A small, highly-coloured fruit shading from bright-red to bright-orange, weighing about 2 oz.

5. "Cashmere"—A medium-sized fruit with a greenish-yellow skin thickly dotted towards the apex; flesh yellow shading to orange around the seed. The fruit possesses a strong granadilla scent and flavour.

All these varieties are fibreless.

A nursery bed of common seedling plants has been laid down at Cairns, and it is hoped to work these with the above varieties at a later date. Several other trees of possible merit have been located since the crop was harvested, and these are being kept in mind for investigation next season.

Papaws.—Around the Cairns district, this fruit has been planted fairly extensively by Chinese growers. It is noticeable, however, that very little attempt is made to improve the general quality by seed selection. Although at least three varieties were grown there originally—viz., Cowley, Long Tom, and New Era—they are now so much intercrossed that it is almost impossible to get a plant of any one variety quite true; in fact, it is quite a common thing to find individual trees carrying fruit of all three types, as well as a number of deformed specimens.

A quantity of seed of the Solo papaw—a choice Hawaiian variety—was obtained some time ago, and plants have been distributed to a number of growers at Cairns and on the Tablelands.

Granadillas.—The growing of these fruits has not been undertaken to supply more than local requirements. The possibility of the extension of the market to embrace Southern Queensland, at least, is a matter worthy of consideration, as such an outlet would give room for considerable expansion.

Sugar Apples.—This fruit is grown to a small extent for local markets only. It is such a rapidly ripening fruit, and of so soft a nature when ripe, that it is difficult to handle for distant markets.

Litchis.—The area under this fruit is still small, but is increasing constantly. Several good varieties have been imported from China during recent years. Propagation from them by the gootee method is gradually increasing the number of good trees. One grower has now increased his area to about 5 acres by this method of propagation. His oldest trees are now six years and have carried two small crops.

With the object of promoting quicker and increased propagation, nursery beds of Longan seedlings have been laid down, and experiments in budding and grafting litchis on them will be carried out as soon as the stocks reach a suitable size.

Avocados.—These have been found to grow and fruit well under both coastal and Tableland conditions. The earliest varieties ripen on the coast during February, and late varieties hang on the trees until September. Growth of trees on the coast is exceptionally vigorous. There appears to be distinct possibilities for this fruit in the North.

Miscellaneous Tropical Fruits.—Under this heading may be listed the many tropical fruits now being grown in the North but not yet on a commercial scale. They include sapodillas, star apples, mabolos, mangosteens, Cochin gorakas, five corners, bread fruit, jack fruit, cashews, vi apples, longans, Malay apples, rose apples, sour sops, bullock's hearts, and wampees. All these fruits are growing luxuriantly and fruiting in various parts of the North, and serve to demonstrate amply the suitability of North Queensland for the production of these classes of fruits.

SUB-TROPICAL AND TEMPERATE FRUITS.

Persimmons.—This fruit is particularly prolific on the Upper Tableland. "Dia dia maru" and "nightingale" appear to be the most suitable varieties.

Grapes.—In the Herberton district, selected varieties are fairly prolific. The main difficulties in successful grape-growing are the uncertainty of a sufficiently long winter to ensure a good resting period, and the possibility of an early wet season damaging the ripening crop. In spite of these uncertain conditions, however, one grower reports having made £50 to £100 per acre per annum over an extended period of years.

Plums.—Chicasaw plums and the hardier of the Japanese varieties are grown with some success on the Upper Tablelands. Prevalence of fruit fly is, however, a decided handicap in the production of this fruit, as it is also in the growing of peaches.

Pears.—The hardier varieties, particularly cooking varieties, are fairly successful in the Herberton district. With all temperate fruits, however, the uncertainty and irregularity of winter conditions militate against good results.

Distribution of Plants.—During the year a considerable number of seeds and plants of tropical fruits have been distributed to inquirers. The South Johnstone Bureau of Tropical Agriculture has also been supplied with various plants and seeds.

Galip Nuts.—A small supply of seed nuts of *Canarium polyphyllum* was received from the New Guinea Department of Agriculture. These have been germinated and will be planted out in various localities to determine the best conditions for their growth.

Rambutans.—A small consignment of plants from New Guinea came to hand safely, and are under trial.

Bartle Frere Experimental Orchard.—Although the Bartle Frere Station was closed down several years ago, the Department still retains an orchard plot on the farm. Most of the citrus trees contained in the orchard carried heavy crops of fruit this year. They included Washington navel, Siletta, and Byfield oranges, Glen Retreat, Scarlet, and King of Siam mandarins. Fruit fly, however, very prevalent and caused heavy losses in the crop.

Six avocado trees carried crops this season—namely, Fuerte and Isham varieties, and four seedlings.

Assam tea Nos. 2 and 3 produced a good crop of seed. A large quantity was gathered and supplied to the South Johnstone Bureau of Tropical Agriculture.

A number of unsuitable varieties of fruit trees have been removed and their places filled with more suitable subjects, including a bread fruit, a wampee, a litchi, and two Jack fruit. Several other varieties of fruits are being raised.

FRUIT PACKING.

The Instructor in Fruit Packing comments in a review of the operations of the fruit industry for the year, and of the results obtained on the market, that an impression is left of better things to come. Prices of fruit on the market have been maintained at firmer levels, with a better demand, good-quality lines being cleared at all times without difficulty.

Export consignments of apples increased from approximately 8,000 to 26,000 cases, although hail caused a reduction of about 24,000 cases in contemplated shipments.

With the increased plantings of good export varieties, such as the Granny Smith, it is not hard to contemplate an increase in apple export from Queensland of up to 100,000 cases per annum, in seasons unaffected by hailstorms and other troubles.

A further effort has been made to revive interest in the packing-house movement. A new packing house was erected at Thulimbah in the course of the year on behalf of a private company organised among growers.

Organised marketing of citrus has shown some improvement, although on the North Coast some orchards have not maintained quality or quantity. A number of groves have been cut out, and others have deteriorated in the quality and quantity of their output. This has influenced prices somewhat for the better class of fruit. The Central inland districts are producing fruit of first-rate quality.

Tropical fruits have maintained their place in public demand. Through the year's marketing operations, pineapples, with the added help of a good factory demand, proved quite a sound investment. For the first half of the financial year banana prices were disappointing. Prices remained on a low level for two reasons. Severe frosts during the winter of 1935 assisted the production of a much higher percentage of small, angular fruit, which is not popular, and there was also an over-production of fruit. During the latter part of the year there has been an upward tendency in prices, which should be maintained by the better quality of fruit and a decreased supply following the reduction in producing areas. Passion fruit have maintained high price levels. Papaws, avocados, custard apples, and other tropical fruits have found an increased output in the Southern States, and their use should be further encouraged.

Tomatoes.—Prices have fluctuated throughout the year, and have not been altogether satisfactory from the growers' point of view.

A summary of the operations shows further extensions of work within the State. Duties have embraced all fruits as follows:—

Bananas.—Experiments and investigations have been made with the object of devising a better type of case for the marketing of bananas. A bushel case, evolved and selected from many suggested cases, proved satisfactory. The Banana Growers' Federation of New South Wales has become interested, and is now carrying out experiments to check the Queensland results, with the idea of adopting the bushel case for general marketing.

In conjunction with the New South Wales Department of Agriculture, experiments were carried out in the cluster-packing of bananas. It is worthy of record that for the first time in the history of fruit-marketing two States worked together to achieve a common result acceptable to both in their fruit-marketing operations.

Supervision of the packing and "get up" of the fruit grown at the Labour and Industry Department's banana settlements at Belli, Mount Mee, and Austinville was given, with reasonably satisfactory results.

Pineapples.—Further work was done in investigating packing difficulties. There still remains much to be done, however, before this can be finalised on the same satisfactory basis as many other fruits. Operations were extended to as far north as Townsville and district.

Tropical Fruits.—Mangoes and papaws were experimented with in a small way. The organised mango experiments from Bowen had to be abandoned, owing to the prolonged dry weather before Christmas making supplies unsatisfactory. In conjunction with a Sunnybank grower, investigations into different types of packing for papaws for the South were made, with interesting results.

There is no doubt the southern markets can be further developed as regards these fruits, but it will not be a hurried process, for quite a considerable amount of effort to "educate" the tastes of southern consumers is required. A move in the right direction is to send only the highest grades and varieties of fruit, the common types being unsaleable.

Deciduous Fruits.—Apple producers have been well served, packing charts for all cases having been issued. A comprehensive publication on apple marketing, embracing storage, &c., is now available.

A complete set of photographs for the issue of a peach-packing chart has been taken, and a publication will be available in time for the next fruit season.

Pear-packing photographs also have been nearly completed for publication. The want of information on this subject is not at present really urgent, but with many contemplated plantings in view, this work will be of great benefit in the near future.

A step forward has been made in marketing in the different States, the adoption of standardised regulations for all States being discussed. This matter should be completed to the satisfaction of all in time for next fruit season.

Tomatoes.—A new tomato-packing chart is also in course of preparation, the series of photographs having been completed during the Stanthorpe season. Experiments in artificial colouring were started, and useful information gained. Three ripening cabinets which have been constructed will permit of an extension of these experiments, and also experiments in the storage of other fruits.

General.—Monthly market notes have been featured in the *Queensland Agricultural Journal.* In addition to articles on the marketing of different fruits, several radio lectures on fruit subjects were given. As mentioned previously, new areas were visited, the sphere of operations covering Southern coastal Queensland, Stanthorpe and the Granite Belt, Gayndah, North Coast districts, Howard, Yarwun-Targinnie, Rockhampton, Gracemere, Yeppoon, Byfield, Tanby, Bowen, and Townsville-Magnetic Island.

School packing classes were held as follows:—Stanthorpe district—apples, pears, and tomatoes; Blackall Range district; Elimbah, Gayndah, Howard—citrus packing; Redland Bay and Cleveland—tomatoes.

Lectures were given at Stanthorpe and Nambour Rural Schools. Approximately 430 senior pupils received instruction. It is noticeable in many districts that quantities of the best packing come from former pupils of these classes. It is to be regretted that instances of a lack of co-operation in the home have, in some cases, prevented the full benefits of the classes being obtained. A pleasing incident occurred in the Stanthorpe district, when it was found that a splendidly packed consignment of apples for export had been done by one of last season's pupils of the Bapaume class aged fifteen years.

NURSERIES.

Nurseries have been kept under close supervision during the year. There are altogether 163 nurseries registered in Queensland, of which 67 are in the metropolitan area.

CITRUS BUDWOOD.

Over 50,000 buds of A grade varieties were selected by departmental officers during the season, and distributed to Queensland nurserymen. Approximately 100 lb. of wild lemon and seedling orange seed also were gathered to provide root stocks.

Citrus Budwood Plot.—The budwood plot at Gayndah has shown excellent growth, and most of the trees which have fruited have produced types true to that of the selected parent. In another two or three years it may be possible to obtain the whole of the nurserymen's requirements from this source.

FIELD EXPERIMENTAL WORK.

Bananas.—The fertilizing experiments commenced a year ago have been continued on several areas between Gympie and the border. The effect of fertilizers, green crops, desuckering, time of maturity of the fruit, effects on the carrying quality, &c., are all subjects of observation. The experiments have not yet advanced sufficiently to be able to record results of a definite character, beyond a statement that, in general appearance, the improvement of the fertilized plots is outstanding in comparison with unfertilized areas adjoining.

Pineapples.—Further storage tests and analyses of pineapples from the plots which are being fertilized for the purpose of determining any difference resulting from the application of sulphate and muriate of potash have up to the present shown very little appreciable variation.

It has been stated lately that colour of the flesh, which is of the utmost importance in canning for export, is affected adversely by the application of muriate, and subsequent tests are intended to be directed along these lines.

Queensland Nuts.—Several plots are under observation to determine the response to various cultural treatments. A study is also being made of likely fertilizer requirements, but beyond the knowledge that superphosphate has caused a vigorous growth in young trees no further data are recorded.

Citrus.—The citrus fertilizer trials at Mount Tamborine are yielding results of a definite character. Apart from a considerable increase in crop production, the trees are responding with a vigorous new growth, heralding a better-quality fruit for future crops. Three kinds of winter green manure crops were planted during March, but although making fair growth, the dry conditions retarded the production of a big bulk of material for ploughing in. In the Gayndah district, green manure trials also have been commenced, and the plantings are showing good growth.

On the North Coast, requests have been made for departmental experiments in various directions to counteract the rapid deterioration of many citrus orchards. A survey of the position has revealed that soil erosion is one of the primary causes of the trouble, and, in co-operation with the Experimentation Committee of the Department, experiments are being instituted to ascertain how practicable it is to check erosion in established hillside orchards.

Papaws.—Seed was selected during the year from papaw fruits considered to be of exceptional merit, and a number of resulting plants have been set out at St. Lucia. A number of seeds of the famous Hawaiian "Solo" variety have also been obtained.

Dates.—The experimental plots of dates at Barcaldine and Roma are making good headway. Several of the original plants died off after planting, but have been replaced.

Tomatoes.—Two experimental areas of tomatoes were designed and planted during February in the Ambrose and Mount Larcom districts, with the object of determining suitable fertilizers, comparing results from previously cultivated or old land and from unstumped hand-cultivated new land, and of testing out varieties.

LEGISLATION.

At the last session of Parliament, several amendments were made to the Diseases in Plants Acts, chief of which was provision to better cope with the fruit fly position. New regulations have since been issued, which provide for—

1. The disposal of waste fruit from shops in Stanthorpe and Warwick;
2. The inclusion of Warwick and Killarney in the Stanthorpe fruitgrowing district;
3. The suppression of weed growth round fruit-bearing trees while the trees are in fruit; and
4. The extension of the winter spraying programme in the Stanthorpe district to the Warwick district.

A maturity standard for grapes designed to prevent the marketing of immature berries early in the season has also been gazetted with beneficial effect.

PUBLICATIONS.

A special section, entitled "Horticultural Notes," has been established in the *Queensland Agricultural Journal,* and regular contributions on various subjects of interest to fruitgrowers are a monthly feature. Market comments and ruling prices are regularly contributed, while a series of articles on tropical fruits, prepared by the Northern Instructor in Fruit Culture, are appearing in current issues Other officers of the branch contribute periodically as items of special interest occur

A number of new pamphlets on the cultivation of fruits and their preparation for market have been issued, while handy-size packing charts have been published

At the 1935 Royal National Show in Brisbane, an excellent exhibit of Queensland fruits and illustrations of the correct methods of packing and preparation for market, grafting of fruit trees, and cultivation methods was arranged, and caused much favourable comment from visitors This was the first exhibit arranged by the Fruit Branch for a number of years.

EXPORTS AND IMPORTS.

The attached figures prepared by the Senior Fruit Inspector record the amount of exports and imports for the year.

H. BARNES,
Director of Fruit Culture.

EXPORTS AND IMPORTS FOR QUEENSLAND—YEAR ENDING 30TH JUNE, 1930.

INTERSTATE EXPORTS.

—	Bananas.	Passions.	Citrus.	Tomatoes.	Strawberries.	Grapes.	Egg Fruit.	Mangoes.	Various Fruit.	Pines.	Melons.	Plants.	Seed.	Honey.
	Cases.	Cases.	Cases.	Cases.	Trays.	Cases.	Cases.	Cases.	Cases.	Cases.	Crates.	Packages.	Packages.	Cases.
Brisbane	5,667	..	105	31,867	25	..	..	..	1,549	12,969	..	18	24,010	..
Clapham	297,511	7,555	15,955	373,067	9,391	5,346	650	34	33,036	350,309	628	270	1,557	2
Wallangarra	1,755	461	177	20,422	42	7,951	4	7,246	20,903	2,730	337	129	74,375	..
Bowen	..	..	1	129,098	..	..	508	65	7	14,231	37	..	..	..
Townsville	..	..	..	4,814	..	..	..	6,087	2,316	..	..	..	..	..
Cairns	..	..	..	..	..	..	..	..	11	..	..	..	..	..
Rockhampton	1	31	185	5,916	..	..	..	15	8	..	..	3	..	..
Totals	304,933	8,016	16,237	425,356	9,458	13,297	654	7,345	55,488	365,998	965	288	99,942	2

NOTE.—Totals made up Brisbane, Clapham, and Wallangarra. Intervening ports included in these totals.

—	Grass Seed.	Pumpkins.	Potatoes.	Maize.	Onions.	Peanuts.	Arrowroot	Ginger.	Tobacco.	Coconuts.	Cucumbers.	Chillies.	Vegetables.
	Bags.	Bags.	Bags.	Bags.	Bags.	Bags.	Cases.	Cases.	Bales.	Bags.	Cases.	Cases.	Packages.
Brisbane	5,371	53,241	10,779	66,398	23,973	77,269	12,073	..	8,671	..	7,395	..	11,180
Clapham	..	53,609	5,657	8,100	10,043	1,175	491	472	535	11	22,072	276	75,476
Wallangarra	..	4,949	3,701	134,078	1,881	85	..	2	..	2	808	..	6,237
Bowen	..	6,450	20	..	..	..	..	..	..	..	5,223	259	..
Townsville	..	803	..	..	..	..	..	..	..	..	..	..	..
Cairns	..	..	..	33,750	..	5,268	..	..	1,944	..	..	..	..
Rockhampton	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	5,371	115,799	20,137	208,576	35,897	78,529	13,564	474	11,150	13	30,275	535	92,893

NOTE.—Totals made up Brisbane, Clapham and Wallangarra. Intervening ports included in these totals.

INTERSTATE IMPORTS.

—	Various Fruit.	Potatoes.	Vegetables.	Plants.	Onions.	Citrus.	Swedes.	Seeds.	Grapes.	Tomatoes.	Tobacco.	Passions.	Pumpkins.
	Cases.	Bags.	Packages.	Packages.	Bags.	Cases.	Bags.	Packages.	Cases.	Cases.	Bales.	Cases.	Bags.
Brisbane	528,092	114,780	15,506	5,743	34,388	..	6,660	..	..	..	..	..	..
Clapham	261,848	48,420	589	303	2,474	121,948	..	1,427	5,102	2,193	187	266	..
Wallangarra	91,081	39,083	9,304	647	6,886	1,085	301	8,879	1,174	41	71	..	..
Bowen	27	2,750	..	5	994	..	..	4	..	..	..	..	10
Townsville	21,067	22,711	1,516	45	9,950	..	..	..	..	..	..	..	..
Cairns	26,484	13,789	1,493	24	5,219	..	47	67	..	..	..	..	..
Rockhampton	3,264	9,926	399	28	6,520	..	..	..	..	..	..	..	..
Totals	881,021	202,283	25,399	6,693	43,748	123,033	6,961	10,306	6,276	2,234	258	266	10

NOTE.—Totals made up Brisbane, Clapham, and Wallangarra. Intervening ports included in these totals.

IMPORTS—QUARANTINE ACT.

Timber.											General.					
Timber.	Skewers.	Shingles.	Bamboos.	Logs.	Super. Ft	Rattans.	Wood Wool.	Timber.	Staves.	Timber.	Willows.	Chinese Goods.	Rice.	Ginger.	Tapioca.	Nuts.	Mauritius Beans.
Cases. 12	Cases. 3	Bundles. 250	Bales. 80	1,102	2,112,956	Bundles. 3,090	Bales. 80	Pieces. 109,969	199,893	Bundles. 105	Bundles. 201	Packages. 781	Bags. 12,181	Baskets. 714	Bags. 9,005	Bags. 3,216	Bags. 386

General- *continued.*

White. Beans.	Tanning Products.	Dessicated Coconut.	Cocoa Beans.	Linseed.	Dates.	Pepper.	Nutmegs.	Coffee Beans.	Coconuts.	Spices.	Tamarinds.	Bird Seed.	Hay.	Arrowroot.	Figs.	Agricultural Seed.	Plants.
Bags. 2,196	Bags. 1,923	Bags. 1,017	Bags. 114	Bags. 228	Cases. 19,846	Bags. 2,379	Cases. 538	Bags. 1,673	Bags. 551	Bags. 483	Cases. 36	Bags. 894	Bales. 806	Cases. 8	Boxes. 1,308	Bags. 907	Packages. 233.

IMPORTS—PARCEL POST—QUARANTINE ACT—419 Packages.

EXPORTS—COMMERCE ACT.

Fruit.	Plants.	Vegetables.	Seed.	Potatoes.	Onions.	Cotton Seed.	Agricultural Seed.
27,898 cases.	233 packages.	30 cases.	42 bags.	374 cases.	138 cases.	115 bags.	175 bags.

A. PERSON, Senior Inspector Diseases in Plants Act.

REPORT OF THE DIRECTOR OF DAIRYING.

Although the past season commenced favourably, the seasonal rains failed and drought conditions prevailed in nearly all the dairying districts during the second half of the year.

A new butter factory was built at Millmerran, while others are in course of erection at Biloela and Jandowae. One factory is being rebuilt. and a number have installed new equipment. One old factory has ceased operations.

In regard to butter competitions held in Australia and overseas, Queensland factories have, as usual, more than held their own.

BUTTER PRODUCTION.

The quantity of butter manufactured amounted to 112,499,567 lb.

The following table shows the monthly production of butter during the period:—

BUTTER PRODUCTION, 1935-36.

	lb.
1935—	
July	4,800,895
August	5,238,914
September	6,358,115
October	9,924,153
November	11,342,901
December	11,479,008
1936—	
January	15,237,730
February	13,925,188
March	12,779,051
April	9,877,826
May	6,304,234
June	5,231,552
Total	112,499,567

MARKETS.

This State exported approximately 70 per cent. of its butter output, most of which went to Great Britain, and approximately 5 per cent. was sold interstate.

GRADING OF BUTTER.

By arrangement between the Commonwealth and State Governments, the system of grading hitherto existing has been altered, which means that the grading for export is now carried out by Commonwealth officers only, the State officers confining their activities to the local and interstate trade.

The following table, which indicates the quality of the butter graded, is that received from the Commonwealth Dairy Branch:—

BUTTER, SALTED AND UNSALTED.

Butter graded for Export—including pats and tins.

Month.	Choicest Boxes.	First Boxes.	Second Boxes.	Pastry Boxes.	Reject Boxes.	Total Boxes.
1935.						
July	34,331	2,243	1,158	76	35	37,843
August	25,038	10,299	3,303	73	97	38,810
September	19,268	30,756	6,939	1,848	120	58,931
October	63,940	47,747	11,438	2,478	34	125,637
November	100,654	56,641	13,040	1,767	52	172,154
December	81,011	56,745	14,656	2,034	42	154,488
1936.						
January	125,017	80,564	22,060	3,760	64	231,465
February	124,202	74,043	24,680	3,103	226	226,254
March	103,624	58,071	16,828	2,922	591	182,036
April	88,563	50,750	11,947	2,526	285	154,071
May	37,197	26,556	5,397	754	175	70,079
June	29,894	26,410	6,068	707	134	63,213
Grand Total	832,739	521,107	137,232	22,048	1,855	1,514,981
Per cent.	54·97	34·39	9·06	1·46	0·12	

BUTTER QUALITY.

From a manufacturing aspect our butter has been very satisfactory, factory faults being practically negligible. The weed trouble usually affecting the grading has been aggravated by the unusual dry conditions.

The standard of the butter on the metropolitan market has been well maintained. A number of complaints were investigated, but results showed that the fault was usually caused by storage with goods of a contaminatory nature.

CHEESE PRODUCTION.

During the year under review an amount of 9,149,113 lb. of cheese was produced in the State. A slight improvement in the quality has been shown, but it may still be regarded as unsatisfactory. It is hoped the enforcing of the recently gazetted regulations, which control the arrival of milk at factories, will have a beneficial effect.

The following table shows the quantity of cheese manufactured each month during the period:—

CHEESE PRODUCTION, 1935-36.

	lb.
1935—	
July	542,727
August	664,542
September	699,264
October	951,877
November	977,904
December	958,131
1936—	
January	1,118,640
February	990,599
March	875,131
April	625,933
May	417,707
June	326,658
Total	9,149,113

The following table indicates the quality of the cheese graded, and is that received from the Commonwealth Dairy Branch:—

Cheese Graded for Export—excluding cheese packed in tins and jars, also processed.

Month.	Choicest Crates.	First Crates.	Second Crates.	Third Crates.	Reject Crates.	Total Crates.
1935.						
July	..	130	410	13	8	561
August	..	457	408	43	5	913
September	23	535	857	130	7	1,552
October	26	682	1,306	198	22	2,234
November	139	473	1,294	118	17	2,041
December	14	979	2,226	129	6	3,354
1936.						
January	38	1,056	2,506	196	19	3,815
February	39	975	2,334	315	59	3,722
March	15	782	2,466	232	30	3,525
April	62	950	1,490	52	10	2,564
May	10	498	922	33	1	1,464
June	..	98	104	6	..	208
Grand Total	366	7,615	16,413	1,465	184	26,043
Per cent.	1·41	29·24	63·02	5·62	0·71	..

QUALITY AND RAW MATERIAL.

Despite the drought conditions experienced, there has been a noted improvement in the quality of cream, which is largely due to the preferential payment for the choice product and a more concentrated supervision over supplies of secondary quality. The major difficulty in maintaining the quality latterly has been weed taint. It must be recognised that limited rainfalls provide more weed growth than pasture or cultivated crops. When there is a shortage of succulent pasture, stock naturally attack weeds to a greater extent than when conditions are normal. Notwithstanding that cream is produced under hygienic conditions, the fact that it is weed-tainted prevents it from being graded as choice at the factory, and this has temporarily arrested the progress of improvement in quality.

Provision for the control of the transport of cream has been made in an amending Dairy Produce Act, and, when organised, will do much to assist the producer in having his cream received by the factory in the best possible condition. Overlapping, which results in a higher cost of transport, will also be obviated.

RESEARCH.

The Dairy Research Laboratory is now well established, and much service has been rendered to the industry during the past season. Arrangements have been completed to have a bacteriologist stationed in Toowoomba, who will be available to the cheese and butter factories of the Darling Downs, and will also carry out other research work in regard to the primary production side of the dairy industry.

REBATE SCHEME.

The Dairy Cattle Improvement Rebate Scheme, under which rebates of railway freights are granted to dairy farmers purchasing young bulls whose dams have qualified for entry into the advanced register of the respective herd books, has been continued during the past year, when an amount of £287 2s. 8d. was granted by way of rebates. This scheme has been of great assistance to farmers desiring to improve the production of their herds.

GRADE PRODUCTION RECORDING.

During the past year there has been a falling-off in the number of herds submitted to test, and the figures also indicate a considerable decrease in production generally, which was due to the drought conditions experienced during the greater portion of the period under review. Great difficulty is experienced in interesting farmers in herd-recording during adverse seasons.

FACTORY RECORDS.

The systematic inspection of the books of co-operative dairy associations has been carried out by the Inspector of Accounts. The business of each association is presented in a form which is readily appreciated by the shareholder suppliers, due to the uniform financial statements now in use by all companies.

The report of the Inspector of Accounts is attached.

DAIRY CATTLE IMPROVEMENT ACT.

The educational activities inaugurated under the Dairy Cattle Improvement Act have been continued, and during the past year field days have been held in the following centres:—Manyung, Pittsworth, Cryna, Abbeywood, Wheatlands, Marburg, Boonah, Wheatvale, Emu Vale, Junabee, Dululu, Don River, Pheasant Creek, Goovigen, Baralaba, Valentine Plains, Kingaroy, Yandina, Nambour, and Kureelpa. There are now 153 dairy committees within the local producers' associations.

VETERINARY SECTION.

An additional veterinary surgeon was appointed during the year under review, and, in accordance with the decentralisation policy, was stationed at Gympie, with supervision over the North Coast and Burnett districts. Under the Dairy Cattle Improvement Act, the Department now has five veterinary surgeons stationed at Brisbane, Toowoomba, Gympie, Rockhampton, and Atherton to control the health of dairy stock. Their services have been in great demand by dairy farmers, who are now paying greater attention to this section of animal husbandry in an endeavour to avoid the economic losses sustained in this direction.

Retirement.

During the year under review the Dairy Branch lost the services of one of its ablest officers through the retirement of Mr. A. R. Wilkin, Instructor in Cheese-making. Mr. Wilkin first joined the Department on the 31st August, 1911, and was regarded as one of the best cheese authorities in the Commonwealth. He was well and favourably known on the Darling Downs, where his services were chiefly utilised. Mr. Wilkin's retirement will mean a definite loss to the Department and the dairying industry generally.

STAFF REPORTS.

FACTORY ACCOUNTS.

Mr. G. B. Gallwey, Inspector of Factory Accounts, reports:—

Inspections of accounts of dairy associations from Rockhampton south have been carried out periodically during the year. The distribution of over-run generally has complied with the regulations.

The survey of the balance-sheets was continued, and the transactions of the butter factories for the year ending 30th June, 1935, showed the following:—

Average cost of manufacture (per lb.), 2.58d.
Number of suppliers, 25,596.
Amount distributed to suppliers, £5,232,773 0s. 1d.
Trade and wages payments, £1,202,022 11s. 11d.
Average price (per lb.), 9.74d.

The cost of production shows a decrease of ·53d. per lb. over last year. The return to suppliers has shown a slight increase for the year.

DAIRY RESEARCH LABORATORY.

Mr. O. St. J. Kent reports:—Work performed during the year has been directed towards butter problems which have been many and varied. It has not been possible to devote very much time to cheese, although there are many difficulties confronting this industry. Late in the year, however, Mr. L. E. Nicholls, B.Sc.Agr., of the Sydney University, was appointed to the laboratory staff, and he will give particular attention to cheese problems during the coming year.

The main project for the year was the survey of the butter factories of the State. This survey work involved studies of pasteurisation efficiency, sanitation of equipment, the quality of water supplies, and various methods of chemical and bacteriological control employed during manufacture. Altogether twenty-six factories have been visited on one or more occasions in pursuance of this work, and during these visits much information of value has been secured and useful advice passed on. Very often the survey work was carried out when the factory was experiencing butter quality troubles, and on such occasions much timely help was given. The surveys also involved a considerable amount of research work in the laboratory on return from the factory.

Other work in the laboratory has been devoted principally to butter defects, cold storage properties of butter, milk and cream defects, and the chemical investigation of materials directly related to butter quality and butter manufacture.

The defects which called for most study this year were those described as surface taint (or decomposed odour), rancid, cheesy, sour, and unclean. Many samples of butter were secured and examined, and it was usually found that the defects could be attributed to the activity of certain micro-organisms present as a result of faulty treatment, or from the use of equipment that had outlived its span of usefulness.

The behaviour of butter in cold storage was investigated during the year. Advantage was taken of the Queensland butter factory managers' show to carry out this work; and altogether ninety-one different butters from Queensland and other States were fully examined, to secure further information on the relationship of butter quality, before and after storage, to chemical and biological properties of butter. This investigation showed that many of our factories can produce an excellent butter, both from the point of view of hygiene and also with a good standard composition.

Many dairy farmers have sought assistance from the laboratory, and consequently many milk and cream troubles have been rectified. Ropiness in milk and cream, sweet curdling of milk, and rancidity in fresh cream, are some of the cream defects that have been encountered and investigated during the year.

Experimental work on copper and iron in dairy products, refrigerating brines, disinfectants, water, parchment paper, ghee, sterilised milk, and many other materials which have had some bearing on butter production, or which have had some dairy significance has been performed.

Extension work has been carried out by means of radio talks, field days, contributions to the Journal, and by means of dairy science schools.

A school for those persons interested in cheese-making was held last August, and that school constituted the last of a series of six schools which had been held in various parts of the State. Arrangements have been made for the holding of a special dairy school to be held in July of the year 1936-37. Six selected candidates from various dairying centres are to be given a month's tuition in the laboratory on dairy science.

The dairy library has been increased during the year, so that we now have the nucleus of a good dairy library which will be kept up to date from year to year.

The staff has been increased by the appointment of Mr. L. E. Nicholls, B.Sc.Agr., from Sydney, and a junior assistant. The numerical strength of the staff is now six, and all members have been kept fully occupied, and worked well during the year.

The programme for the coming year will include the following—

(*a*) Continuance of survey work of butter factories and the commencement of similar work in cheese factories;

(*b*) Further experiments on cold storage butter;

(*c*) Studies on defects in milk, cream, butter, and cheese;

(*d*) Butterfat losses in buttermilk investigation to be recommenced;

(*e*) Study of composition of butter with view to improved standard of composition.

During the year that has passed it has been pleasing to note that increased interest is being taken in the work of the laboratory, not only by factory managers and directors, but also by the dairy farmers themselves. There is also a growing keenness among factory operatives to improve their knowledge of the principles that underlie the manufacture of butter and cheese. It is the aim of this laboratory to stimulate greater efficiency both on the farm and in the factory, and if the co-operation that exists at present between the farm, factory, and laboratory continues, then much good will ensue.

HERD TESTING.

The Senior Herd Tester, Mr. L. Andersen, reports:—

The year just ended was abnormally dry in the dairying districts, and the result of the unusual climatic conditions is plainly visible in our herd recording work. Not only has there been a falling off in the number of herds submitted, but the figures also indicate a considerable decrease in production generally. Fortunately, good winter rain fell over most of our dairying country, which has brightened the outlook for the coming season. A total of 402 herds, aggregating 14,422 cows, were submitted in the course of the year, practically all districts being represented from Atherton in the north to the border of New South Wales in the south. The figures for each District are:—Darling Downs, 73 herds; Moreton, 101; Wide Bay, 86; Burnett, 69; Central, 51; and Atherton, 22 herds. The number of herds submitted from the Darling Downs, where the dry spell was prolonged, show a decrease of 113 herds, or approximately 60 per cent.

In the course of the year production returns were computed for 6,413 cows, and the figures indicate an average production of 3,458 lb. milk, and 141 lb. butterfat. Considering the severity of the season, the production of butterfat per cow may be regarded as satisfactory, compared with last year's figures—154 lb. per cow. This, however, may be explained by the fact that we have now more than 200 herds listed, which have been under test continually for periods ranging from two to four years and some for much longer periods. The owners of these herds are naturally among the most progressive dairy farmers in the State. Having production returns before them from year to year, they have been in a position to cull definitely the low producers and gradually, but surely, increase the average production per cow. Again, realising that it pays to feed the good producer, they have not neglected this important point in animal husbandry and, consequently, their herds have had a considerable influence in keeping up the average production per cow. The average yield of milk from all records computed is shown as 3,458 lb. per cow, as against 3,813 lb. last year, and it is interesting to note that the difference in milk yield corresponds very closely to the yield of butterfat.

Examining the records, it is found that four owners have herds which produced an average of more than 250 lb. butterfat per cow. The yield of 17 herds lies between 200 and 250 lb., while 75 herds yielded between 150 and 200 lb., 151 herds failed to reach an average of 150 lb., and 36 herds failed to produce on an average 100 lb. butterfat per cow.

Taking individual herds, the best figures are shown by a dairyman from the Theodore district. Eight of his cows, which completed their lactation during the year, produced an average yield of butterfat of 267 lb. The best individual yield from a cow is recorded in a herd in the Oakey district with 9,016 lb. milk, containing 378 lb. butterfat. It is interesting to observe that this herd also includes cows with production records as follows:—375 lb., 363 lb., 350 lb., 336 lb., 328 lb., and 324 lb. butterfat. As may be expected, this herd has been under test for many years, and the result in this case is just one instance of what can be accomplished when the Babcock tester is used systematically in conjunction with better feeding. This herd was first submitted for testing twelve years ago, and the first year's return indicated an average yield far below the average of other herds tested in the district. Since then the herd has been tested regularly by this Branch every sixty days, and the records last year (1934-35) showed a return of 294 lb. butterfat per cow. This year, however, the bad season is distinctly reflected in the returns, which are computed as 250 lb. per cow. The number of cows completing their lactation during the year amounted to 35. Considering the seasonal conditions, even these figures must be recognised as satisfactory, and they go to show what can be done when herd recording and herd improvement is practised conjointly. In this case, the results are all the more creditable, as the farm is managed by a widow and two young boys.

The following table sets out a few herd production returns which indicate the difference between good and bad management, and also the result of constant herd testing on the one hand, and herds which have been submitted for the first time.

Number of Cows.	Average Yield of Butterfat.	Number of Cows.	Average Yield of Butterfat.
	Lb.		Lb.
22	260	13	96
14	259	57	99
35	250	36	96
10	223	43	99
34	208	45	91
91	192	74	113

Taking the last two returns, and assuming that both herds had 80 cows in the herd, the following figures are interesting:

	£	s.	d.
80 cows, at 192 lb., produce 15,360 lb. butterfat .. .. =	768	0	0
80 cows, at 113 lb., produce 9,040 lb. butterfat .. .. =	452	0	0
Difference in favour of better herd ..	£316	0	0

Taking two other herds of approximately even number of cows:—

	£	s.	d.
35 cows, at 250 lb. butterfat, produce 8,750 lb. butterfat .. .. .. =	437	10	0
35 cows, at 96 lb. butterfat, produce 3,360 lb. butterfat .. .. .. =	168	0	0
Difference in favour of better herd ..	£269	10	0

Progressive dairy farmers in all parts of the State carry out herd recording work, and the result is quite apparent from the following list:—

District.	No. of cows completing Lactation.	Average yield per cow Butterfat.	Herd Recorded Years.
		Lb.	
Theodore ..	8	267	2
Clifton ..	22	260	6
Atherton ..	14	259	2
Oakey ..	35	250	12
Pittsworth ..	8	230	4
Toowoomba ..	25	216	10
Beechmont ..	25	208	4
Maleny ..	14	208	4
Monto ..	15	207	2
Gatton ..	13	206	2
Killarney ..	19	203	8
Toowoomba ..	25	201	4
Ipswich ..	25	197	3
Maleny ..	20	196	3
Killarney ..	32	194	12
Oakey ..	91	192	12
Warwick ..	11	190	3

In the course of the year we again had the assistance of a number of dairy associations, some 214 herds being tested by the following associations:—Atherton, 22; Caboolture, 38; Chinchilla, 3; Downs, 32; Killarney, 13; Logan and Albert, 22; Maleny, 18; Queensland Farmers', 30; Southern Queensland Dairy Co., 16; Stanley River, 3; Warwick, 13; Moola, 2; Irongate, 1; Pittsworth, 1.

In addition, 59 herds were tested by dairy inspectors as follows:—Wowan, 22; Bundaberg, 6; Monto, 17; Mundubbera, 14; while similar work was supervised on the Atherton Tableland.

The remainder—129 herds—were tested by the herd recording staff at headquarters, Brisbane.

Looking over the herd recording figures, the fact cannot be ignored that the prolonged dry season has once more reminded our dairy farmers of the necessity for providing a reserve supply of feed for a lean year.

It is apparent from our returns that the systematic farmers who have been testing for years have also studied the feed requirements of their dairy cattle. Whereas the majority were reduced to very low figures, most of the herds which have been tested regularly kept up the production in spite of the adverse conditions—indicating plainly the good manager and studmaster.

Providing feed for stock in a drought is a very big question, and I think one which should be looked at from a national standpoint. Unfortunately, very low prices for dairy produce have been received during the last few years, and, coupled with two successive dry years, have placed most of our dairy farmers in a less favourable financial position. Ensilage seems to be the cheapest and surest way to conserve feed for dairy stock, but the capital outlay of building silos is beyond most of our dairy farmers at the present time.

Correspondence indicates that owners realise the importance of the work carried out by this Branch, and, although many farmers were, through stress of weather conditions, obliged to withdraw their herds from testing for the time being, letters invariably show that they appreciate the work and intend to carry on when conditions improve.

HERD RECORDING.

Factory.	Number of Herds.	Number of Cows Tested.	Number of Tests.	Cows completed Lactation.	Average Yield of Milk.	Average Yield of Butter-fat.	Number of Cows yielding from 0 to 99 lb. Butter-fat.	Number of Cows yielding from 100 to 149 lb. Butter-fat.	Number of Cows yielding from 150 to 199 lb. Butter-fat.	Number of Cows yielding from 200 to 249 lb. Butter-fat.	Number of Cows yielding from 250 to 299 lb. Butter-fat.	Number of Cows yielding from 300 to 349 lb. Butter-fat.	Number of Cows yielding from 350 to 399 lb. Butter-fat.	Number of Cows yielding over 400 lb. Butter-fat.
					Lb.	Lb.								
DARLING DOWNS, 1935-36.														
Toowoomba	11	224	429	80	4,404	189	8	7	30	23	11	1	..	..
Clifton	10	283	358	55	5,401	219	3	3	16	17	9	7	..	..
Dalby	9	332	460	32	2,919	126	4	23	5	..	..	..	..	..
Oakey	8	336	980	226	4,697	188	14	46	83	49	25	4	5	..
Chinchilla	3	42	61	..	..	..	..	..	..	..	..	..	..	..
Killarney	13	505	1,390	361	3,874	151	60	129	114	37	16	4	1	..
Warwick	11	265	630	171	3,174	127	53	65	40	11	2	..	..	..
Texas	2	66	91	48	2,632	117	12	31	5	..	..	..	..	..
Downs—Sundries	6	110	318	97	4,429	165	4	46	21	19	5	2	..	..
Total	73	2,163	4,717	1,070	..	..	158	350	314	156	68	18	6	..
General Average	..	..	..	..	4,019	161	..	..	..	..	..	..	..	..
MORETON, 1935-36.														
Beaudesert	22	558	1,491	359	3,375	129	85	172	93	9	..	..	..	..
Esk	12	727	2,191	453	3,577	133	83	225	132	13	..	..	..	..
Booval	9	232	566	80	4,001	149	7	40	14	17	2	..	..	..
Boonah	9	184	283	43	3,839	155	4	17	18	4	..	..	..	..
Grantham	5	59	176	33	3,702	139	3	20	8	2	..	..	..	..
Rosewood	2	67	199	5	2,275	102	2	3	..	..	..	..	..	..
Laidley	5	46	147	75	3,526	142	21	20	28	4	2	..	..	..
Kingston	16	670	1,873	410	3,534	150	48	190	114	45	10	2	1	..
West Moreton—Sundries	21	827	2,375	428	3,388	142	57	198	148	21	4	..	..	..
Total	101	3,370	9,301	1,886	..	..	310	885	555	115	18	2	1	..
General Average	..	..	..	..	3,507	140	..	..	..	..	..	..	..	..
WIDE BAY, 1935-36.														
Caboolture	25	916	2,115	220	2,960	121	72	108	32	8	..	..	..	..
Pomona	6	181	392	108	3,491	157	8	52	25	19	4	..	..	..
Eumundi	7	150	309	44	3,899	131	11	20	9	4	..	..	..	..
Woodford	9	377	1,012	108	2,693	115	60	85	24	1	..	..	..	..
Maleny	18	672	1,827	372	3,575	156	46	128	126	58	14	..	..	..
Gympie	21	672	2,193	448	3,257	139	93	193	125	28	9	..	..	..
Total	86	2,968	7,848	1,362	..	..	290	586	341	118	27	..	..	..
General Average	..	..	..	..	3,232	139	..	..	..	..	..	..	..	..

HERD RECORDING—*continued.*

Factory.	Number of Herds.	Number of Cows Tested.	Number of Tests.	Cows completed Lactation.	Average Yield of Milk.	Average Yield of Butter-fat.	Number of Cows yielding from 0 to 99 lb. Butter-fat.	Number of Cows yielding from 100 to 149 lb. Butter-fat.	Number of Cows yielding from 150 to 199 lb. Butter-fat.	Number of Cows yielding from 200 to 249 lb. Butter-fat.	Number of Cows yielding from 250 to 299 lb. Butter-fat.	Number of Cows yielding from 300 to 349 lb. Butter-fat.	Number of Cows yielding from 350 to 399 lb. Butter-fat.	Number of Cows yielding over 400 lb. Butterfat.
					Lb.	Lb.								
BURNETT, 1935-36.														
Mundubbera	14	218	591	199	3,118	124	41	119	38	1	..	..	..	..
Kingaroy-Nanango	25	810	2,148	417	3,506	136	74	207	108	24	4	..	..	..
Gayndah-Biggenden	13	468	1,079	180	3,057	127	42	88	47	2	1	..	..	..
Monto	17	859	492	119	3,682	147	15	54	33	15	2	..	..	..
Total	69	2,355	4,310	915	..	..	172	468	226	42	7	..	..	..
General Average	..	..	..	..	3,356	133	..	..	..	..	..	..	..	..
CENTRAL, 1935-36.														
Bundaberg	6	108	108	3	1,996	87	2	1	..	..	..	..	..	..
Gladstone	11	1,139	326	239	2,861	125	64	130	40	5	..	..	..	..
Rockhampton	12	983	291	188	2,694	118	72	75	37	4	..	..	..	..
Wowan	22	621	1,699	340	3,050	125	106	148	69	11	5	1	..	..
Total	51	2,851	2,424	770	..	..	244	354	146	20	5	1	..	..
General Average	..	..	..	..	2,900	123	..	..	..	..	..	..	..	..
ATHERTON TABLELAND, 1935-36.														
Atherton	22	715	1,960	410	3,790	157	50	147	142	51	16	3	1	..
Total	22	715	1,960	410	..	..	50	147	142	51	16	3	1	..
General Average	..	..	..	..	3,790	157	..	..	..	..	..	..	..	..
SUMMARY OF HERD RECORDING, YEAR 1935-36.														
Darling Downs	73	2,163	4,717	1,070	4,019	161	158	350	314	156	68	18	6	..
Moreton	101	3,370	9,301	1,886	3,507	140	310	885	555	115	18	2	1	..
Wide Bay	86	2,968	7,848	1,362	3,232	139	290	586	341	118	27	..	..	..
Burnett	69	2,355	4,310	915	3,356	133	172	468	226	42	7	..	..	..
Central	51	2,851	2,424	770	2,900	123	244	354	146	20	5	1	..	..
Atherton	22	715	1,960	410	3,790	157	50	147	142	51	16	3	1	..
Totals	402	14,422	30,560	6,413	..	..	1,224	2,790	1,724	502	141	24	8	..
General Average	..	..	..	..	3,458	141	(19·086 per cent.)	(43·505 per cent.)	(26·882 per cent.)	(7·828 per cent.)	(2·199 per cent.)	(0·374 per cent.)	(0·125 per cent.)	..

REPORT OF THE CHIEF ENTOMOLOGIST.

I have the honour to submit herewith a report of the work performed in the Division of Entomology and Plant Pathology during the twelve months ended 30th June, 1936. This report consists of a review by myself of the entomological work of the division and a review by Mr. J. H. Simmonds, Senior Plant Pathologist of the plant pathological work.

STAFF.

Early in December, Mr. A. W. S. May joined the staff as a temporary Assistant to Entomologist, and Messrs. F. W. Blackford and J. E. C. Aberdeen also joined the staff early in April, both these officers being appointed in the grade of Assistant to Pathologist. Mr. Aberdeen's appointment is subsidised partly by a section of the tomato growers through the Other Fruits Sectional Group Committee, and partly by the Rural Credits Development Fund of the Commonwealth Bank, his duties consisting entirely of the investigation of tomato pathological problems.

Mr. L. F. Mandelson, Plant Pathologist, returned from his visit to the tobacco-growing areas of the United States of America during the month of November, and Mr. W. A. T. Summerville, Entomologist, left on a world tour at the beginning of January. Mr. Summerville will be absent from Australia during the whole of 1936, and the main objective of his overseas mission is to obtain as much information as practicable on various aspects of fruit production in such important producing centres as Palestine, England, Canada, the United States of America, Hawaii, and New Zealand. Two other countries, viz., Ceylon and Egypt, were also visited during the early stages of the itinerary. Mr. H. K. Lewcock, Plant Pathologist, left for the Hawaiian Islands during the month of May, the duration of his stay in that country being eleven weeks. This overseas trip was financed by a grant from the Pineapple Sectional Group Committee, and its objective was to enable Mr. Lewcock to obtain the very latest details with respect to pineapple production in that country.

Two officers were transferred during the twelve months under review, Mr. J. Harold Smith, Entomologist, being transferred from North Queensland to Nambour, after having served a period of seven years in the former district. Mr. R. B. Morwood, Plant Pathologist, was transferred at the beginning of June to Toowoomba in order to conduct plant pathological investigational work at that most important centre. Pathological investigations associated with crop production in the Darling Downs and the Stanthorpe districts will in future be handled from Toowoomba instead of from Brisbane, as has been the case in the past.

Mr. A. R. Brimblecombe, Assistant to Entomologist, who had previously been engaged on the investigation of general entomological problems at headquarters, was made available as from the beginning of December for forest entomological investigational work exclusively. As from the date of such rearrangement of his duties his salary and all expenses involved in his investigations have been borne by the Forestry Sub-Department.

During the course of the year under review, Mr. T. McKnight, who was formerly engaged on clerical duties, was appointed a cadet.

ACCOMMODATION.

Further minor repairs and refencing were carried out at Nambour, and the repainting of the building was completed. As a result of certain rearrangements in accommodation at Rockhampton, the Assistant Entomologist at that centre, Mr. W. J. S. Sloan, has now been provided with a much larger room for laboratory work, the increased accommodation being necessitated by the growing scope of his activities. A suitable cottage with a small area of ground attached has been rented for the use of the Plant Pathologist at Toowoomba.

PLAGUE GRASSHOPPER.

In last year's annual report I had to discuss the incidence of a very serious outbreak of the plague grasshopper, *Calataria terminifera* Walk., but I am pleased to report that there has been no repetition of that disastrous outbreak. Grasshoppers were observed hatching out in the Goondiwindi and Texas districts in October, 1935, but the number emerging did not appear to be so great as was the case during the years immediately preceding the 1934-35 outbreak. The grasshopper population in these districts did not build up to serious proportions, and no reports of losses of pastures or of cultivated crops were received. Adult grasshoppers of the plague species were reported as being present in small numbers in pastures and in lucerne and cotton fields in the cotton districts of Central Queensland, but here again the population remained at a low level throughout the season.

ARMYWORM PLAGUE.

Although the State remained free from a grasshopper plague, certain other species of insects were abnormally abundant during the 1935-36 season and were responsible for serious losses in certain districts and in certain crops. One of the most important of these insects was the armyworm, *Spodoptera mauritia*, Boisd., which appeared in large numbers about the middle of March, the infestation extending over a very considerable area. Outbreaks were recorded in coastal and near coastal districts from Rockhampton to the southern border, infestation extending as far inland as Pittsworth on the Darling Downs. Pastures, Sudan Grass, saccaline, maize, sorghum, imphee, giant panicum, and wheat were among the plants attacked, and in some cases very large areas of pastures were eaten out.

As is usual with armyworm outbreaks the position looked very serious, and many settlers feared a succession of generations of the same proportions. Fortunately there was only the one generation in which numbers were abnormally high, and as was the case in the last outbreak of this pest, which occurred in the 1931-32 season, the plague ceased almost as abruptly as it commenced.

Natural enemies were abundant towards the end of the outbreak, a Braconid wasp belonging to the genus *Apanteles,* and an Ichneumonid wasp, *Lissopimpla semipulata* Kirby, being particularly abundant in the infested coastal districts. The Ichneumonid parasite was also reported from Biloela as being present in very large numbers during the month of April on grassland which had been infested by the armyworms a few weeks earlier. A predatory Pentatomid bug, *Oechalia consocialis* Boisd., was also very abundant during the course of the outbreak in the Callide Valley. An unnamed species of Tachinid fly proved very helpful in reducing the armyworm population in coastal infestations.

The value of poison bran baits in controlling such outbreaks was again amply demonstrated and much good was accomplished by baiting, particularly when this control measure was adopted in the early stages of infestation.

This armyworm plague afforded an opportunity to test out methods of control such as spraying. Gratifying evidence was obtained that spraying with a crude oil emulsion is capable of producing a very heavy mortality in the armyworms, and this control measure was demonstrated to be of distinct value in cases where a non-poisonous method of dealing with an outbreak is desired.

The investigation of this armyworm plague was handled by Mr. J. A. Weddell, Entomologist, and the position was fully reviewed in the *Queensland Agricultural Journal* for May.

RUTHERGLEN BUG.

An outbreak of the Rutherglen bug, *Nysius vinitor* Berg., showed up in October, and large populations of this pest carried on well into the month of November. As usual the outbreak was widespread, but the sum total of the damage caused by the insect was not really very high.

During the early part of November it was very abundant on passion vine, potato, lettuce, and beetroot in the Sunnybank district.

The infestation on passion vine presented a number of difficult features in so far as control was concerned, *e.g.,* very large populations of the bug were found in closed flowers, *i.e.,* in flowers containing setting fruit. The numbers in such closed flowers ranged from 18 to 135. It is thus evident that a considerable proportion of the bugs present on passion vine were situated in portions of the plant to which access by insecticides was virtually impossible. The population on open flowers was sometimes even greater, as many as 162 bugs being counted on a single flower.

Although the Rutherglen bug population was very high on both open and closed flowers, Mr. Weddell was of opinion that there was no evidence of damage at all comparable to what one would expect from such a population, and indeed the impression was formed that the more serious damage occurred on growing tips of shoots, the damage in this case arising from the presence of small colonies of bugs not generally exceeding six in number. These small colonies were responsible for heavy losses of young buds on the recently-formed growth, the bud loss being estimated as in the vicinity of 100 buds per vine.

The foliage of infested potatoes wilted badly and curled in such a manner as to form tubes in which many of the bugs sheltered. Here again the nature of the association of the bug with the host plant presented definite difficulties in control, for although feeding took place on the growing tips which wilted and withered, much of the bug population was not reasonably exposed to attack by sprays.

Control experiments were carried out by Mr. Weddell, these being as follows:—

(*a*) Spraying with a white oil and nicotine sulphate mixture.

(*b*) Dusting with a special nicotine dust, containing 10 per cent. of tobacco dust with 7·5 per cent. of nicotine sulphate.

(*c*) Use of smoke clouds by day and by night.

Unfortunately no clear indication of the value of these experimental control measures was obtained, and in this connection I might mention the fact that it is very difficult to check up the results of insecticide application for the control of such an active insect as the Rutherglen bug, the population of which on economic plants is being constantly reinforced during the course of an outbreak by migration from weed host plants on which the pest is breeding in the vicinity of cultivated crops.

In the case of the Sunnybank outbreak, the weed plant on which the Rutherglen bug was found to be breeding most freely was cudweed, *Gnaphalium purpurium.*

Considerable areas of potatoes were also attacked in the Murgon district during the month of October, and in this case control experiments were carried out by Mr. N. E. H. Caldwell, Assistant Entomologist, insecticides employed being two strengths of a resin--caustic soda-fish oil spray, a derris spray, and a dust containing 7·5 per cent. of nicotine sulphate. Here again considerable difficulties were experienced in assessing results and the experimental work must be regarded as inconclusive.

The pest was also abundant in the Central district, where cotton, tomato, pumpkin, eggplant, pineapple, and grape vine were freely attacked in certain localities. Cotton seedlings were reported by Mr. Sloan as being frequently destroyed, as many as seventy bugs being found on a single seedling. Older cotton was also infested, the bugs migrating to it as the weeds dried out, for the cotton stood the prevailing dry conditions much better than the weeds. It was not considered, however, that the migrating bugs were responsible for any appreciable loss of squares on the cotton.

The outbreak enabled us to add to our knowledge of the habits of this insect and also revealed additional difficulties in control which had not previously been fully appreciated. It is evident, however, that considerable additional attention will have to be devoted to this insect when the next outbreak occurs, and in connection therewith it is hoped that the first stage in the renewed investigation will be the initiation of laboratory trials to test the toxicity of various insecticides employed against the Rutherglen bug.

RED SHOULDERED LEAF BEETLE.

A considerable outbreak of the red shouldered leaf beetle, *Monolepta rosea* Blkb., occurred in the month of October, and infestation occurred at intervals at a number of centres throughout the year. The outbreak was widespread, reports of the presence of the beetle being obtained from centres as widely separated as Coolangatta in the south, and Tarzali on the Atherton Tableland.

This outbreak afforded a satisfactory opportunity for fully testing the value of flares in controlling this pest. Experiments with the use of flares were carried out by Mr. Weddell in the Sunnybank district and by Mr. Smith at Montville, and in both cases it was demonstrated that flares were capable of destroying large numbers of the pest. It may be mentioned in this connection that evidence was obtained that the beetles confined their attention to a very restricted area on first migrating, initial infestation on occasions being restricted to a few trees. It would appear important, therefore, to employ flares as soon as swarms arrive, and before an infestation becomes a dispersed one. Mr. Weddell also experimented with a modified resin-caustic soda-fish oil spray, and obtained a very considerable mortality with that insecticide. At the conclusion of the epidemic it was felt that a definite advance had been made in our knowledge of measures which might be adopted for the control of the red shouldered leaf beetle.

The distribution and sporadic occurrence of this insect presents rather a difficult problem for solution. During this year's outbreak it occurred in enormous numbers in restricted areas isolated from each other by wide stretches of apparently uninfested country and, as already mentioned, centres of infestation apparently occurred throughout the whole of coastal Queensland. An effort was made to obtain information regarding the breeding grounds of this pest, but no trace of the immature stages of the beetle could be found. This is rather regrettable, because a full knowledge of the life cycle of any pest is highly desirable when formulating measures to be employed for its control.

The pest was found eroding the skin of loquats in the Gympie district; it was recorded as attacking the fruit of quinces and apples and the foliage of roses and citrus at Coolangatta; maize was recorded as a host plant at Tarzali; the fruit and foliage of edible figs were very severely injured at Sunnybank; the foliage, flowers, and squares of cotton were attacked at Whinstanes and at Gootchie; the young shoots and foliage of oranges and lemons were attacked at Montville, but injury to the fruit was not observed; and the flowers of mango and plum and the foliage of plum, mulberry, rose, and hibiscus were attacked at Mudgeeraba.

PASPALUM WHITE GRUB.

As was anticipated damage by the paspalum white grub, *Lepidiota caudata* Blkb., on the Atherton Tableland, was much less pronounced during the autumn and winter of 1936 than during the corresponding period of 1935. The comparative freedom from loss in pastures was due to the fact that the 1934 flight of beetles was a light one, and the grubs maturing from that flight during the autumn and winter of 1936 were relatively few in number. Hence the pastures escaped serious damage.

Following on a visit to the Atherton Tableland by the Honourable the Minister in September, 1935, a White Grub Investigations Committee was appointed, the personnel of the Committee consisting of Messrs. C. McKeon (Chairman), R. T. Crocker, M. Lynch, C. W. Roseblade, and D. O. Atherton (Hon. Secretary), Messrs. Crocker, Roseblade, and Lynch being representatives of the producers on the Tableland. An extensive series of field experiments of an agricultural nature was designed by Departmental officers, and this series of experiments was discussed and modified where necessary by the Committee just referred to. The experimental programme has been in large measure initiated, and it is hoped that it will yield useful information which will enable the farmers in the white grub infested areas to in some very considerable measure overcome the adverse influences of the grubs on the Tableland.

The various experiments initiated were designed to supply information on the following points:—

(1) Influence of artificial manures in grub-infested pasture.
(2) Effect of mechanical pasture renovation.
(3) Value of rotational grazing in pasture infested by white grubs.
(4) Value of crop rotations in which pasture features as the major crop.
(5) Value of giving pigs free range on pasture during the period of beetle flight.

The whole position as it existed at the end of 1935 has been reviewed by Mr. Smith, and his article summarising the position has been submitted for publication in an early issue of the *Queensland Agricultural Journal*.

OTHER SPECIES OF WHITE GRUBS.

White grub infestation was by no means confined to the Atherton Tableland, although that still remains the centre at which most extensive damage is occurring, at least in so far as pastures are concerned.

White grubs belonging to the species *Pseudholophylla furfuracea* Burm. were found to be attacking pastures on a few dairy farms in the Childers district, and grubs belonging to a species of *Rhopaea* were recorded by Mr. Smith as infesting paspalum pastures in the Killarney district. The same officer also investigated an outbreak of white grubs in peanuts at Nanango, and here again the species belonged to the genus *Rhopaea*. The particular outbreak investigated at Nanango occurred in a grub-infested grazing paddock which was planted in spring, the peanuts subsequently succumbing to attack, although an excellent strike was obtained. White grub injury occurs occasionally in peanut crops in this district, but in the case under discussion and in others recorded loss occurred only in peanuts planted in grub-infested pastures which had been recently ploughed.

CORN EAR WORM IN COTTON.

The corn ear worm, *Heliothis obsoleta* F., was once more a very important factor adversely affecting cotton production in the State.

October planted cotton did not suffer severely from this pest, but November and early December sown crops were more seriously affected, while January planted cotton was frequently almost a total loss, partly as a result of corn ear worm infestation and partly on account of a severe Jassid attack.

A very considerable proportion of Mr. Sloan's time was devoted to the investigation of the corn ear worm, his programme including control experiments to test the practicability and efficiency of arsenical dusts. These experiments were conducted at Biloela and Mulgeldie, and the results were sufficiently encouraging to warrant their repetition on a larger scale and in a somewhat modified form next season. In assessing the benefits which may be derived from a dusting programme in cotton, consideration must be given to the fact that, in addition to its effect on the corn ear worm population, dusting also produces some degree of mortality in other important cotton pests such as the rough boll worm, *Earias huegeli* Rozenk, the cotton leaf perforator, *Bucculatrix gossypii* Turn., and in certain other species of leaf-eating caterpillars. Thus it is possible that further experiments may demonstrate that dusting is a payble proposition in cotton. Certainly the possibility should not be ruled out even although dusting costs are higher in Queensland than is the case in those cotton-producing centres in which dusting is a definitely accepted part of the routine procedure in the production of the crop.

Quite a number of farms experienced a migration of corn ear worm larvæ during the month of February from weeds in paddocks adjacent to cotton fields, and in some cases migrations from lucerne paddocks to cotton cultivations also took place. These migrations afforded an opportunity for once more successfully demonstrating the value of an arsenical, molasses, and water swab for dealing with such larval movements, when the migrating larvæ are not detected until they have become established in the cotton fields. Larvæ detected in an earlier stage of migration would, of course, be dealt with by drawing furrows and scattering the bait generally employed for cutworm control.

COTTON WEB-SPINNER.

The cotton web-spinner, *Loxostege affinitalis* Led., appeared as an important pest for the first time since the revival of cotton growing some fifteen years ago. The outbreak was investigated by Mr. Sloan and an article dealing with the results of his investigation has been prepared for publication in an early issue of the *Queensland Agricultural Journal.*

Swabbing with the arsenical, molasses, and water mixture referred to in the discussion on corn ear worm was found to be highly successful in dealing with certain phases of attack by this species. Baits consisting of freshly-cut weed host plants which had been dipped in the swabbing mixture were also recommended by Mr. Sloan, who additionally drew attention to the value of the furrow and cutworm bait method of dealing with a migration of web-spinner larvæ detected before they have reached the cotton fields.

The abnormal abundance of this species was not confined to the cotton-growing districts, for Mr. Weddell investigated a serious outbreak on the common salt bush, *Atriplex muelleri,* and on other host plants in the Roma district. Naturally the problem of control of such a pest in pastoral areas is beset with much greater difficulty than is the case where the outbreak occurs in agricultural districts.

ROUGH BOLL WORM.

The rough boll worm, *Earias huegeli* Rozenk, was regarded by Mr. Sloan as being rather destructive during the year under review. Its attack was directed chiefly against the squares, although some loss of terminals and larger bolls was recorded. This pest exercised a marked influence in reducing the top crop on October planted cotton.

Moths, eggs, and larvæ in all stages of development occurred throughout the season and no definite broods were observed. It was not possible to correlate the severity of attack with the age of square bearing plants, with soil type, or with the age of the cultivation.

The corn ear worm dusting experiments to be carried out next season will, it is hoped, give some indication that dusting may also exercise a material degree of control over rough boll worm infestation.

PINK BOLL WORM.

The pink boll worm, *Platyedra scutigera* Holdaway, was an unimportant pest in the main crop, but it was somewhat commoner in the later picked cotton. Infestation, however, was appreciable only in poor cotton, chiefly in diseased bolls, and this pest does not appear to warrant any investigation at the present juncture, for the measures now adopted for dealing with it appear to keep the pink boll worm at a reasonably low level.

COTTON JASSIDS.

Several species of Jassids belonging to the genus *Empoasca* were abnormally abundant during the 1935-36 season, and were responsible for very heavy losses of cotton, particularly in the later planted crops. This is the first occasion on which the bulk of the cotton areas have been heavily infested by these species, and it is hoped that next season the Jassid population will sink to what was previously regarded as the normal level, *i.e.,* that it will constitute a problem only in somewhat restricted areas.

No direct control measures are as yet available for dealing with these Jassids, but observations are being made by the officers of the Cotton Branch on varietal resistance to infestation, for it would appear that, should Jassids continue on the scale on which they occurred during the 1935-36 season, varietal resistance must be explored as the most promising line of attack on the problem.

GREEN VEGETABLE BUG.

The territory infested by the green vegetable bug, *Nezara viridula* L., has undergone a marked increase during the last twelve months, the pest having been reported from leguminous weeds in a cotton field at Monto and from vegetable gardens at Rockhampton.

Through the courtesy of the Department of Agriculture in Western Australia, a colony of the egg parasite, *Microphanurus megacephalus* Ashm., was received in Brisbane. This beneficial insect was bred through a number of generations in the laboratory, the surplus individuals being liberated as field colonies at Nudgee, Brookfield, Redland Bay, Lawes, Toowoomba, Nobby, and Brookstead. The parasite was recovered from an egg mass two months after it had been liberated at Nobby, but it is still too early to say whether it has survived the Darling Downs winter.

POTATO TUBER MOTH.

The fumigation experiments initiated last year for the control of the potato tuber moth, *Phthorimaea operculella* Zell., were satisfactorily continued by Messrs. Weddell and May. It is hoped that they will be finalised during the 1936-37 departmental year.

TOMATO MITE.

The tomato mite, *Phyllocoptes* sp., has assumed the status of a major pest during recent years in the Mount Larcom and adjacent tomato-growing districts, and Mr. Sloan has accordingly devoted some time to it. Very promising results have been obtained from applications of sulphur dust.

BANANA THRIPS.

The investigation of the banana thrips, *Scirtothrips signipennis* Bagnall, was continued by Mr. Caldwell, and it is hoped that the work will be finished by 31st December, 1936. The full results from the season's experimental plantations are not yet available, but present indications are that they will confirm those obtained in the 1933-34 and 1934-35 seasons. The banana thrips has again been much less abundant than was the case a few years ago. This is unfortunate from the point of view of the investigator, but even so it is thought that the results of the three years field experimental work will justify some measure of quiet confidence in the ability to control banana thrips on a financially sound basis when banana prices are at all reasonable.

Silver rust in bananas in plantations near the Queensland-New South Wales border is evidently on the increase and Mr. Sloan has recorded it as commonly occurring in the Yeppoon district, where up to 15 per cent. of the bunches may show some degree of infestation, every fruit in a bunch being not infrequently discoloured.

Silvery areas are the first manifestation of infestation by the silver rust thrips, but these areas subsequently become reddish-brown. The attack is not confined to any particular part of the fruit, and although the skin may become rough to the touch, this feature is not nearly so marked as in the case of infestation by *Scirtothrips signipennis.*

Mr. Sloan records the fact that the weed *Passiflora suberosa,* which grows abundantly in Central Queensland coastal areas, is a common host of the species of thrips causing silver rust on the bananas, and that the degree of silver rust in bananas is directly associated with the abundance of the weed host.

The species of thrips responsible for silver rust is not *Thrips imaginis* Bagnall, as was once thought probable, but its specific identity has not yet been definitely determined.

As mentioned in last year's report, it is considered probable that the programme adopted for the control of the thrips producing ordinary rust in bananas will also automatically control the species responsible for the occurrence of silver rust.

Mr. Caldwell obtained further evidence of the association of the banana thrips with citrus fruit, the infested orchard in this case being at Palmwoods.

QUEENSLAND FRUIT FLY.

The investigation of the Queensland fruit fly, *Chaetodacus* tryoni Froggatt, was continued by Mr. Hubert Jarvis, the main feature of the season's work being the testing of certain repellent sprays. Fruit fly losses in the Stanthorpe district were very light during the progress of these field experiments, and in three of the five experimental orchards results were accordingly inconclusive. In the other two, however, and particularly in one of these two, there was a definite contrast between the treated and untreated trees. It is hoped to make the results available at an early date.

The new fruit fly lure referred to in last year's annual report was again tested in the Gayndah, Rockhampton, and Stanthorpe districts, and these tests amply confirmed the promising results obtained in the earlier experiments.

Although the season was notable for the considerable degree of freedom from fruit fly infestation in the Stanthorpe district, losses elsewhere were frequently quite severe.

CITRUS ROOT BARK CHANNELLER.

Last year's annual report mentioned the fact that certain important points in the life history of the citrus root bark channeller, *Pseudomydaus citriperda* Tryon, were still veiled in obscurity. Recently, however, Mr. Smith has obtained some useful information on certain of these obscure points and the investigation of this important citrus pest may be regarded as progressing satisfactorily.

A new field control experiment was recently initiated at Mount Tamborine and at Montville, the objective of the experiment being to test a butt treatment method which may inhibit infestation.

Preliminary work on chemical lures for the control of this pest gave negative results, but it is intended that this line of investigation be further explored as opportunity offers.

HAY ITCH MITE.

The hay itch mite, *Pediculoides ventricosus* Newp., was found infesting an apiary in the vicinity of Brisbane and the brood in nineteen of the infested hives died out. Small mites were plentiful on the surface of the brood comb, and Mr. Henry Hacker, Entomologist, reported that when the capped brood cells were opened many of them contained dead pupæ infested by the globular gravid females of this mite.

FOREST PESTS.

Mr. Brimblecombe continued his work on forest pests. The white grub problem in coniferous forests was again featured in his programme of work and attention continued to be given to measures for the control of the Queensland pine beetle, *Calymmaderus incisus* Lea.

Other Investigations.

Work was also continued on many other pests as opportunity offered at the various centres, and in quite a number of cases useful progress can be recorded.

Beekeeping.

The advisory and inspectorial work required in connection with beekeeping was once more carried out by Mr. Hacker, and a number of additional apiaries were inspected during the year under review.

Illustration Work.

As usual a large number of black and white figures and colour sketches were prepared by Mr. I. W. Helmsing, and most of these have appeared in publications issued during the twelve months.

A development in Mr. Helmsing's work has been the preparation of photomicrographs, more particularly in connection with plant pathology and animal parasitology.

Library.

The library received many accessions by way of exchange, and a number of important new publications were added to it by purchase. Funds also permitted the purchase of a considerable number of publications for use at the various field stations. Cataloguing of the library is proceeding, Messrs. McKnight and W. A. Smith being engaged thereon.

Shows and Wireless Addresses.

Exhibits were staged at several shows and wireless addresses were also delivered by members of the staff.

Advisory Work.

Advisory work continued to be an important feature of the activities of the division, and there appeared to be an increasing desire on the part of primary producers to seek advice from its officers.

Publications.

The following entomological and plant pathological publications appeared in the *Queensland Agricultural Journal*:—

1. White Louse of Citrus, by W. A. T. Summerville.
2. The Pinhole Borer of North Queensland Cabinet Woods (Parts 3 and 4), by J. Harold Smith.
3. Angular Leaf Spot of Cotton, by R. B. Morwood.
4. Insect Enemies of Lantana, by Robert Veitch.
5. Corn Ear Worm, by Robert Veitch.
6. Fused Needle of Species of Pinus, by H. E. Young.
7. Pink Wax Scale, by W. A. T. Summerville.
8. White Wax Scale, by W. A. T. Summerville.
9. Spraying Experiments for the Control of Fruit Fly in the Stanthorpe District, by Hubert Jarvis.
10. Potato Tuber Moth and Its Control, by Robert Veitch.
11. Diseases of the Tomato, by J. H. Simmonds.
12. Leaf Miner and Stem Borer of Tobacco in North Queensland, by D. O. Atherton.
13. Red Shouldered Leaf Beetle, by Robert Veitch.
14. Paspalum Ergot, by R. B. Morwood.
15. Irish Blight of Potatoes. Spraying Experiments at Beenleigh, by R. B. Morwood.
16. Passion Vine Diseases, by J. H. Simmonds.
17. A Recent Armyworm Outbreak, by J. A. Weddell.
18. The Tobacco Growing Industry in the United States of America (Parts 1 and 2), by L. F. Mandelson.
19. Experiments with Vapours for the Control of Blue Mould of Tobacco, by L. F. Mandelson.

ROBERT VEITCH,
Chief Entomologist.

THE WORK OF THE PLANT PATHOLOGICAL BRANCH.

Mr. J. H. Simmonds, Senior Plant Pathologist, reports as follows:—

I have to submit herewith a brief summary of the activities of the plant pathological branch for the year 1935-36. Only investigational work is referred to and for convenience the items are listed under the headings of the individual crops concerned.

Cereals.

Continuing his work on the seed treatment of cereals, Mr. Morwood laid down experiments in connection with wheat bunt, barley covered smut, oats smut, and prairie grass smut. Owing to the light infection occurring, the results from the wheat bunt and oats smut plots were inconclusive. Rather heavy infections occurring in barley plots enabled significant results to be obtained. Three mercurial dusts, Sanogran A, Ceresan U.T. 1875, and Cooper's mercurial gave good commercial control. Formalin 1 pint to 40 gallons covered for twelve and four hours was somewhat less effective. Hence for the formalin treatment it will be advisable to revert to the 1 to 30 gallons formula as previously tested and recommended, the method being to sprinkle and cover overnight. Sulphur was useless.

Results obtained the previous year with prairie grass smut were confirmed and elaborated. The three mercurial dusts listed above and the formalin treatment gave good commercial control. Copper carbonate dust was unsatisfactory.

An instance of the remarkable rapidity with which fungus diseases may spread was given by Paspalum ergot (*Claviceps paspali*). Although not recorded until 1935 in Queensland, this disease made such rapid progress during the summer months that practically all the south coast and near north coast areas were infected. In the vicinity of Brisbane it was difficult to find a healthy seed head. It will be important to note whether this is in the nature of an isolated epidemic or whether a repetition will occur each year.

Cotton.

Following the apparent increase in the incidence of angular leaf spot Mr. Morwood laid down an experiment at the Cotton Research Station, Biloela, to test the value of seed treatment. It was found that treatment with ceresan reduces the amount of seed-borne infection to negligible proportions, but it is too early to say what effect this will have on the state of the mature crop.

TOBACCO.

Work in connection with tobacco diseases has been confined to testing out a commercial application of the vapour method for controlling blue mould. The vapours of benzol, toluol, X 3 solvent, and X 300 special boiling point spirit were compared at different strengths with each other and with the standard colloidal copper spray. Modifications of the standard seed bed frame to reduce overhead expenses were also attempted. The results are discussed by Mr. Mandelson in the June number of the *Queensland Agricultural Journal*.

The rapid deterioration of the calico used for seed-bed covers on account of mildewing lead to the testing of nine different treatments with a view to prolonging the life of the covers. Shirlan R.A., alum-lead acetate and a copper soap treatment each effectively prevented mildew and the use of these materials with and without a vapour proofing treatment is being tested on a small scale.

BANANA.

Black End and Anthracnose.—The work on banana pathology has been continued by Mr. R. S. Mitchell and the writer, and much useful information has been gained. As previously, *Gloeosporium musarum* was the most common organism implicated in black end. Various strains of this fungus have been described and their relative pathogenicity has been determined. Owing to the failure of the more common fungicides to more than partially control black end, the method of infection with *G. musarum* has been investigated, and a considerable amount of fresh light thrown on the subject. A form of latent infection may be a factor to be contended with. An important feature of the black end work has been the correlation of plantation conditions with the existence of the disease. The presence of a number of dead leaves around the pseudostem appears to be definitely conducive to black end development and, conversely, frequent trashing lessens the incidence of the disease. Field studies have shown that severe infection of the fruit may occur without the presence of many free spores in the plantation or packing-shed. The reason for this appears to be that rain is the chief disseminating factor. The main source of spore inoculum is evidently the pustules present on the dead hanging petioles.

Rubbery Fruit.—A somewhat obscure trouble locally known by this name has been responsible for appreciable losses in recent years. The skin of affected fruit ripens to a dull almost brownish-yellow colour and often bears conspicuous water-soaked lines running longitudinally. Ripening is not normal. The flesh remains abnormally firm and is of a rubbery nature so that the fruit may be bent considerably without breaking. This is apparently due to a failure of a percentage of the starch to be converted to sugars. Chemical analyses of affected and healthy fruit have shown no marked differences, and the presence of both diastase and oxidase has been demonstrated. Chemical analyses of the soil from affected and non-affected areas has yielded little of value, but on the other hand its physical character may play an important part. The rubbery condition is most frequently found in plantations on soils of a clayey nature overlying a stiff subsoil, and in localities subject to chilling. A tentative explanation is that rubberiness is due to physiological disturbances bound up with cold and other plantation conditions which prevent normal ripening. An experiment to determine whether bagging the bunches would overcome the trouble was inconclusive owing to the small number of rubbery fruit developing throughout the treated area.

CITRUS.

As a result of the absence of Mr. Mandelson on his visit to America, diseases of citrus have received less attention during the past twelve months. It is hoped that at an early opportunity it will be possible to test out certain substitutes for the Bordeaux spray and confirm the promise given by colloidal copper in this connection.

PINEAPPLES.

Mr. Lewcock has had to devote almost the whole of his time to extension work in connection with pineapple wilt control. As a result of his previous investigations he is now able to give fairly accurate advice regarding the procedures necessary to obtain a healthy vigorous plant resistant to this disease. The additional staff recently allocated to pineapple work will allow the investigational side of pineapple pathology to receive further attention.

PAPAW.

Spraying experiments for the control of the ripe fruit rots were continued but without marked success. It appears that although the main loss occurs during the spring and early summer, spraying, if it is to be effective, will have to be carried out over a much more extended period. A number of typical examples of the supposed virus disease, yellow crinkle, were observed in the Yarwun district, and here the disease was evidently of considerable economic importance.

DECIDUOUS FRUITS.

Black Spot of the Plum.—Following the decision that zinc lime was without effect on this disease five other sprays were tested by Mr. Morwood in the Stanthorpe district. These were Bordeaux mixture, colloidal copper, colloidal sulphur, lime sulphur, and Shirlan. Those containing copper gave promise of successful control. Several variations in the schedule are being tried this season in order to determine the best periods at which to apply the copper sprays as injury is likely to result from applications made after the fruit has set.

Apple Powdery Mildew.—Severe hail damage again interfered with this experiment. Some benefit was evident from colloidal sulphur and other sulphur sprays. Ammonium polysulphide mixed with lead arsenate caused severe burning.

Grape Anthracnose.—Only a moderate infection occurred in the experimental plot. Under the conditions obtaining dormant treatments exerted little effect. A succession of Bordeaux sprays early in the growing season appear to be of greater importance.

TOMATO AND VEGETABLE CROPS.

The recent appointment of Mr. Aberdeen to investigate tomato problems will greatly assist in advancing our knowledge of the control of tomato diseases. Already the identity has been determined of a serious and hitherto unrecorded disease recently causing considerable loss in the Victoria Point district, with the result that the appropriate control measures can be put into operation.

Two interesting records were *Sclerotinia sclerotiorum* from bean, and scurf from sweet potato caused by *Monilochaetes infuscans*.

FOREST PATHOLOGY.

Fused Needle of Pinus spp.—Mr. H. E. Young has continued to give attention to this disease, which is now considered to be physiological in nature. Experiments are being carried out to determine whether the unfavourable effects of certain soil types can be overcome by means of alteration in cultural practices.

Mycorrhiza.—Isolation and pure culture inoculation have shown that in addition to *Boletus granulatus, Rhizopogon luteolus* is a mycorrhiza former in the case of several species of Pinus in Queensland. Soil treatment experiments were carried out at Yarraman to ascertain an effective means of obtaining rapid mycorrhiza infection in exotic pines in that district. Acidifying the soil with a dressing of 4,200 lb. of sulphur per acre proved very effective. This treatment has enabled seedlings to be grown locally, whereas previously it had been necessary to obtain them from coastal nurseries. Mr. Young has also attempted to identify a mycorrhizal fungus of hoop pine (*A. cunninghamii*).

Diplodia dieback.—The two species of Diplodia involved in the dieback of *Pinus spp.* have been determined as *D. natalensis* in the Beerwah district and *D. pinea* in other parts of the State. *D. pinea* alone has been serious during the past year, and owing to its ravages the planting of *Pinus radiata* has been discontinued.

Root Rot of Hoop Pine.—The organism responsible for this disease was identified at the Imperial Mycological Institute as *Rhizoctonia crocorum*. It appears to be controlled by the application of Cheshunt mixture.

Butt Rot of Maple, &c.—A butt rot of maple, *Flindersia brayleyana*, kauri pine, *Araucaria cunninghamii*, and *Cupressus lusitanica* has caused appreciable loss in plantations on the Atherton Tableland. With the help of the Imperial Mycological Institute the organism concerned has been provisionally identified as *Hymenochaete mougeotii*.

Leaf Cast of Kauri Pine.—This disease, which is of unknown origin, can be effectively controlled in the nurseries by applying Bordeaux mixture. Experiments are now being conducted to find a means of controlling the disease in the field.

REPORT OF THE GOVERNMENT BOTANIST.

As in previous years, correspondence and personal interviews with farmers, pastoralists, and others occupied most of the time of the office. The work of the Branch is mainly advisory, and the inquiries submitted extended over a wide range of subjects relative to plant life. By means of publicity through the Press and lectures, where nearly always the availability of the Branch for reports on any specimens submitted is stressed, this service is now being availed of more widely by farmers and pastoralists. Every year the number of specimens submitted is very much on the increase. A large number of specimens was again received from the Department of Public Instruction, particularly from scholar secretaries of school forestry, grass and forage project clubs, and from teachers desirous of having reports on specimens suitable for nature study classes. Where the replies to inquiries submitted were deemed to be of more than individual interest they have been utilised by the Editor of the Departmental publications for the pages of the *Queensland Agricultural Journal*. This is now regarded as a feature of the journal, and extracts have been quoted freely in other journals, both in Australia and abroad, and numerous subscribers have indicated their appreciation of this feature.

GRASS AND HERBAGE INVESTIGATIONS.

From early December until early March, Mr. S. L. Everist was on a tour of duty in Western Queensland, visiting properties on which it was proposed to lay down pasture experimental plots. After the inspection of a number, it was decided to choose three plots in the Blackall district at Duneira, Mineeda, and Athol respectively one on Corona, about 70 miles north-west of Longreach and one at Cameron Downs, about 45 miles south of Hughenden. Each of the Blackall plots consists of an area of 18 acres divided into two areas of 12 acres and 6 acres each. The other two are of 30 acres, and each has been divided into three areas of 6 acres each, and one area of 12 acres. Of these, it is proposed to leave one of the 6-acre areas unstocked, and the others stocked at varying capacities and at various stages of growth, in order to determine the optimum carrying capacity, while maintaining the pastures in good condition.

The objects of this tour, in addition to selecting sites for plots, were to ascertain from personal observation and interviews with graziers the most important problems in connection with the inland pastures, and to collect detailed information on the present grass and herbage constitution. It is hoped that the plots will yield data as to whether or not areas denuded of Mitchell grasses by overstocking and droughts will again become covered with Mitchell grasses by simply keeping stock off them for a period. Another problem of importance is life-history work on Mitchell grass, particularly the longevity and germination of Mitchell grass seeds.

For a fortnight from 23rd May, Mr. Everist and myself visited Western Queensland on a general collecting and observation tour. The trip was made for the purpose of making general botanical collections, especially of grasses and herbage following the late summer rains, and to make an examination of plots established for the study of regeneration of Mitchell grasses. The plots in the Blackall district have all been fenced, but will remain unstocked until Mr. Everist takes up residence in the West. The plot at Corona Station was chosen in the absence of the manager, who considers that another area more typical of denuded Mitchell grass country should be chosen. This question will be discussed with the manager towards the end of the year, when the plots will be visited again. The plot on Cameron Downs will be fenced in the near future.

For the purpose of keeping in touch with the experiments being carried out on grasses and fodder plants by Dr. E. Hirschfeld on his property at Bybera, in the Inglewood district, a visit was made there in April. Much of the time was spent in going over the property, and rather an interesting collection of plants was made. The past season had been particularly dry on the Darling Downs, and there was little to report in regard to the experiments being carried out, but of the Mitchell grasses, *Astrebla lappacea*, the Curly Mitchell grass, showed most inclination to spread away from the original plots. This is very satisfactory, as this particular species is probably the best of the Mitchells.

"THE NATIVE PLANTS PROTECTION ACT OF 1930."

Acting on advice received, it was decided to protect, under the abovementioned Act, the native plants growing on Friday Island, Torres Strait. In the *Government Gazette* of 15th May, 1936, the following plants were listed as protected ones on Friday Island. The assistance of Mr. H. J. Hockings, Brisbane, and Mr. Frank Hockings, Thursday Island, in drawing up the list is hereby acknowledged.

Botanical Name.	Common Name.
Casuarina	She Oaks—any variety.
Rhizophora mucronata	Red Mangrove.
Bruguiera Rheedei	Black Mangrove.
Ceriops candolleana	Orange Mangrove.
Avicennia officinalis	White Mangrove.
Any tree of the genus Ficus	Figs.
Mimusops Browniana	Wongi Tree.
Terminalia platyphylla	Pear Tree.
Cocos nucifera	Coconuts.
Any tree or bush of the genus Acacia	Wattles.
Albizzia procera	Acacia Tree.
Eucalyptus corymbosa	Bloodwood.
Eucalyptus crebra	Ironbark.
Tristania suaveolens	Swamp Mahogany.
Any tree or bush of the genus *Melaleuca*	Tea Tree.
Ptychosperma elegans	Palm Tree.
Eucalyptus albo	Gum Tree.
Eucalyptus tereticornis	Blue Gum.
Siphonodon pendulum	Passion-fruit Tree.
Licuala Muelleri	Fan Palm.
Terminalia catappa	Torres Strait Almond.
Any tree or bush of the genus *Pandanus*	Pandanus Tree.
Any tree or bush of the genus **Banksia**	Honeysuckle.

POISONOUS PLANTS.

A large number of specimens of plants suspected of being poisonous to stock was received during the year from pastoralists and dairy farmers in different parts of the State. As in previous years, records of the more important are made herewith as a small contribution towards our knowledge of this important subject.

Family *Portulacaceæ.*

Portulacca australis or *P. filifolia.*—A sample of the pigweed was received from the Cloncurry district through the Prickly-pear Land Commission. It was reported to kill sheep within two days of their eating it. Paralysis sets in in the hind-quarters and gradually affects the whole body. The sample was obtained at Eastern Creek, on the border of the Cloncurry and Hughenden Land Agents' Districts. The specimen was not in good enough condition to determine which of these two species of portulacca or pigweed it might be.

Family *Papaveraceæ.*

Papaver hybridium.—Rough Poppy, sent in from Mulgeldie. It is known locally as "Wild Poppy," and supposed to be poisonous to stock. One farmer claims that it made a cow insane, but did not kill her.

Family *Malvaceæ.*

Hibiscus heterophyllus.—Received from Rosedale as suspected of poisoning cattle.

Malva parviflora (Marsh Mallow).—Mr. Carleson, Knobby, informed me in conversation that he had working horses on his farm affected by the staggers through eating this plant. As in most weeds, causing this trouble, the animals had to be driven or worked before symptoms were manifested.

Family *Crassulaceæ.*

Cotyledon or *Echeveria* sp.—Received from Kingsthorpe with a report that it is suspected of having caused the deaths of a couple of pigs. Plants of these genera are known to be poisonous. They are fairly extensively cultivated in Queensland as garden succulents.

Family *Leguminosæ.*

Lonchocarpus Blackii. — Received from Woodford as suspected of poisoning calves when the vine was in full young growth—not regarded as so dangerous in its older stages.

Swainsona luteola.—Received from Clermont, as a sample of a horse-doping pea.

Family *Onagraceæ.*

Oenothera tetraptera.—A specimen of this Evening Primrose was received from the Stock Inspector, Maryvale, as the possible cause of sickness and death in dairy cows.

Family *Umbelliferæ.*

Hydrocytle laxiflora.—Received from Mr. E. Bilborough, Springbrook, with the report that he thinks the plant is deleterious to cattle.

Family *Caprifoliaceæ.*

Sambucus Gaudichaudiana (Native Elderberry).—Received from Wanora, via Ipswich, with a report that it was suspected of causing the deaths of several head of stock.

Family *Rubiaceæ.*

Canthium coprosmoides.—Received from Gladstone with the following note:—"Can you kindly identify the scrub tree, leaves of which I enclose, and any information thereon would be welcome, as I have had deaths amongst my stock after eating the leaves."

Family *Compositæ.*

Helichrysum diosmifolium.—Received from Belthorpe, via Woodford, with the following note:—"I am posting you a parcel containing a portion of a shrub which grows extensively in this district. We have lost a few head of cattle lately which we suspect have been poisoned by it. It appears that very few cattle eat it to any extent, but an odd one apparently takes to it and eats a fair amount and becomes poisoned, dying within twelve hours in great agony. The beast before death becomes bloated to some extent showing only on one side; when the paunch is examined it shows large patches of inflammation on the inside and the contents have an acid smell and also the smell of the bush being forwarded to you."

Verbesina encelioides (Wild Sunflower).—Mr. W. D. Francis, who visited the Tara district for the purpose of inspecting several properties where losses of sheep had occurred, reported that the Wild Sunflower is very common in parts of the district. This plant when eaten by sheep causes pneumonic symptoms. Judging by the statements of several of the settlers, it is quite likely that this plant has been the cause of deaths of stock in the district.

Wedelia asperrima.—Received from Oorindi as responsible for deaths in sheep. Received from Brookdale, via Burketown, with the following note:—"Known here as daisy, and is blamed for giving sheep "pink-eye'." Mr. C. W. Winders, in forwarding this plant for identification, stated that it formed almost the only feed available to sheep in which mortalities occurred in the Julia Creek district, and that the manager of Auckland Downs Station stated that pneumonia appeared to be present in some of the dying sheep.

Family *Apocynaceæ.*

Lyonsia eucalyptifolia.—Specimen from A. J. Harris, Woodstock, Daymar, saying, "Lost sheep after eating this vine."

Thevetia nerifolia.—Fruits of this tree, sometimes called the yellow oleander, were received from the Caves, via Rockhampton, as possibly having caused the deaths of pigs.

Family *Asclepiadaceæ.*

Hoya australis.—Received from the Stock Inspector, Dalby, as causing losses among dairy stock.

Family *Solanaceæ.*

Datura Leichhardtii.—Specimens were received from the Inspector of Stock at Longreach with the report that it was growing on the town reserve, and was thought responsible for the deaths of sheep untrucked at Longreach and travelled over the reserve. The sheep were said to lie down and refuse food, and there was a discharge of food and water from the mouth. The sheep were not affected with bloat or hoven, and died without a struggle in from eighteen to twenty-four hours. Sick sheep not dead within thirty hours usually recovered. The sheep were generally in poor condition. There was a slight inflammation of the intestines, and the fourth stomach was usually empty.

Nicotiana suaveolens.—Reported by Mr. W. D. Francis as being common on a property in the Surat area, and as the possible cause of mortality among stock in that area.

Physalis sp. (probably *P. angustifolia*).—Received from Goomburra, via Allora, with the report that the berries were causing the deaths of pigs.

Solanum Wendlandii.—Specimens of this ornamental vine, known in Queensland as solanum or potato vine, were received from the Stock Inspector, Toogoolawah, who reported that a farmer in his district had some trouble with his horses; some of them were sick and one died. He had noticed them eating this plant and thought it possible that it might have caused the trouble.

Family *Nyctaginaceæ.*

Bougainvillea.—Specimens were received from Boat Mountain, via Murgon, from a correspondent who stated:—"Have been losing a few fowls, and they have been eating the bottom leaves from the plant. They are probably over-fat, but I just want to make sure." Later he wrote, "I wrote you some time ago about Bougainvillea and fowls dying. I did not destroy the plant straight away, and still more died. Have had no deaths since destruction, so it must have been the plant that was poisoning them."

Family *Proteaceæ.*

Stenocarpus sinuatus (Wheel of Fire).—Specimens of this tree were received from a correspondent who stated that the flowers were falling into an open-air goldfish pond and the fish were dying.

Family *Thymelaeaceæ.*

Wikstrœmia indica.—Received from Dunwich as reported causing losses among dairy cattle.

Family *Euphorbiaceæ.*

Petalostigma quadriloculare (Quinine Berry).—Received from the Stock Inspector at Goondiwindi, who stated that it was known locally as strychnine bush, and stockowners suspected it of causing losses when it had been cut as feed, especially after a shower, or heavy dew. "It has been stated," added Mr. Dixon, "that sheep have been known to feed on the foliage after showery weather, and to die within a very short time, in some cases fifteen minutes." He further stated that he had not had any personal experience of such an occurrence, but was assured from a reliable source that this had happened.

Family *Araceæ.*

Typhonium millari.—The following is a copy of a letter received from Mr. G. J. McIvor, Gilbert River:—"By this mail I am posting to you a specimen of a plant which I think may be responsible for a number of very sudden deaths in horses here lately. "This plant is well-known to the aboriginals as a very deadly poison. It grows in rich soil, and very often in the wet season is found growing amongst couch grass, especially around tree stumps, where a certain amount of manure collects."

HERBARIUM.

Additional herbarium boxes were provided, and a large quantity of outstanding material has been mounted and filed. More herbarium shelving is still required, however, as some of the boxes and cabinets are too full to allow handling the specimens without damage. The ferns are being rearranged according to more modern systems of classification. An index will be compiled for them, and this will simplify considerably identifications of these plants.

Exchanges have been continued with the Botanic Gardens, Singapore, Straits Settlements, Botanic Gardens, Buitenzorg, Java, Dutch East Indies, New York Botanic Gardens, and the Arnold Arboretum, Boston, U.S.A., and Dr. Otto Degener, Honolulu. Some very valuable specimens have been received from the Director, Royal Botanic Gardens, Kew, including some specimens of grasses and other plants collected by Mr. C. E. Hubbard during his stay in Queensland. We are indebted to the Director of Kew for the critical examination and determination of many specimens submitted, particularly of introduced weeds, of which it is necessary to have the correct botanical identity. Several specimens have been sent to the Botanic Gardens, Berlin, for examination by specialists, and our thanks are due to the Director of the Botanic Gardens and Museum (Dr. L. Diels) for help in this matter. Specimens of eucalypts have been submitted from time to time to Mr. W. F. Blakeley, of Sydney, the well-known authority on the group, and of grasses of the genus *Danthonia* to Mr. A. Morris, of Melbourne. A considerable number of specimens during the year have been sent to the National Herbarium, Melbourne, and my thanks are due to the Government Botanist and Director, Mr. F. J. Rae, for comparing specimens with types and for the loan of type material.

PUBLICATIONS.

The most important publication during the year was "Contributions to the Queensland Flora" No. 5, issued as Vol. 47, No. 5 of the proceedings of the Royal Society of Queensland. The paper included descriptions of thirty-two Queensland plants previously unknown to science, and a large number of plants not previously known to Queensland.

A number of papers on grasses, weeds, poisonous plants, &c., prepared by myself and staff, have been published in the *Queensland Agricultural Journal.*

C. T. WHITE, Government Botanist.

REPORT OF THE AGRICULTURAL CHEMIST.

The samples received in the Chemical Division of the Department for analysis during the year ending June, 1936, are tabulated below.

—	1933–34.	1934–35.	1935–36.
Butters	833	551	446
Buttermilks	68	737	3
Bloods	..	..	125
Cheese	116	184	212
Dipping fluids	407	342	334
Egg pulps	3	..	..
Fertilizers	104	78	123
Fruits, fresh	181	184	105
Fruits, canned, jams and preserves	8	12	13
Grasses, plants, seeds, &c. ..	284	159	166
Grasses, plants for hydrocyanic acid	175	62	14
Limestones, lime, &c. ..	27	18	29
Milks and other milk products	17	26	5
Nuts, Australian, Tung, &c.	11	..	11
Pest destroyers	258	104	105
Salts and stock licks ..	52	39	13
Soils and subsoils	131	164	256
Soil moisture determinations	2,496	2,400	2,496
Soils for nitrate, pH, carbon, and mechanical analysis	1,055	2,249	2,175
Soils licked by stock ..	..	..	6
Stock foods	125	79	46
Tobacco	19	21	17
Waters	100	156	184
Wheats	37	216	40
Viscera and toxicological specimens	199	175	309
Veterinary medicines ..	..	..	2
Samples for Arsenic in Wool Commission	..	319	35
Miscellaneous	88	109	43
Totals	6,797	8,385	7,313

GLASSWARE TESTED, &C.

—	Received.	Approved.	Condemned.	Broken.	Per cent. Condemned.
Cream bottles ..	2,616	2,403	207	6	7·8
Milk bottles ..	650	640	5	5	0·77
Pipettes	685	660	18	7	2·60
Thermometers ..	906	762	135	9	14·90
Totals ..	4,857	4,465	365	27	7·5

Two hundred and twenty-six pints of iodine solution were prepared for the testing of cattle-dippings fluids, and 352 pints of N/10 alkali for testing milk acidity.

STAFF.

During the year Mr. L. S. Smith was transferred to Government Botanist's Branch and Mr. H. L. Wood was transferred from the Photographic Branch to our staff.

Owing to attendance at University lectures, a considerable amount of time was spent away from the laboratory by three members of the staff, but, notwithstanding this, owing to the good work generally of the staff, the work of the laboratory was kept up to date.

VISCERA.

One hundred and seventy-four samples of viscera and stomach contents were analysed during the year, and of these 49 samples contained arsenic, 1 contained cyanide, and 1 lead arsenate. This shows that more than 28 per cent. of the samples of viscera examined contained arsenic, thus indicating that greater care is required to prevent stock having access to any form of arsenic used about the homestead.

In addition 135 samples of other toxicological specimens were examined, and of these 11 contained arsenic, 7 contained cyanide, and 1 contained an alkaloid.

SOILS.

The chemical analyses of the soil samples submitted are given in Table I., and the mechanical analyses and physical properties in Table II. The soils marked "P" refer to pineapple soils, and "F" to forestry.

There were 76 soil samples forwarded by farmers for the usual agricultural analysis, and officers of the Department of Agriculture and Stock and of other Departments forwarded 180 samples for analyses, as such were required in connection with the particular problems they were investigating.

In addition to such analyses, the nitrate-nitrogen content of 1,782 soil samples was determined for Mr. Wells, Director of Cotton Culture, who is having investigated the effect of grass rotation upon the composition of cotton soils. The moisture content of 2,496 soil samples was also determined in connection with investigations of the Cotton Branch.

The pH of 393 samples of soils was determined by the electrometric method. Of these samples 302 were forwarded in connection with the investigation of Queensland pineapple soils, which is being undertaken by a team of Departmental officers, and it has been arranged for Mr. Vallance of this staff to be the soil chemist in this investigation, and for some months past he has been engaged entirely upon various soil problems in connection with pineapple soils.

A number of soils were forwarded also from the Entomological Branch for analysis and pH determination in connection with research concerning the White Grub trouble in the Atherton paspalum pastures, and the White Grub and some pathological problems for the Forestry Department.

From the extreme north of the State 33 soil samples were received from different aboriginal settlements, and complete chemical analyses were made on these samples and recommendations as to fertilizer and cultural treatment forwarded.

The number of soils received from the different settlements are herewith detailed:—Saibai Island 2, Lockhart River Mission 3, Mapoon Mission Station 6, Aurukun Mission 3, Cape Bedford Aboriginal Reserve 8, Yarrabah Mission, Cairns, 11. Generally speaking, the soils were not well supplied with humus and had low phosphoric acid content.

Grasses, Shrubs, &c.

The number of grass and shrub samples received was approximately the same as received last year, and the analyses of these samples are tabulated in Table III.

A number of samples of different shrubs were forwarded in connection with the feeding of sheep in times of scarcity of grass, and generally speaking, these shrubs have a very good protein content—in fact, a high protein content when compared with that contained in samples of grass roughage. In regard to the mineral content of the shrubs, lime is present in much higher amounts than phosphoric acid, and generally in grass roughage the lime content is higher than the phosphoric acid, therefore when stock are feeding on shrubs and grass roughage the supplying of phosphatic licks to stock should prove of benefit.

That a deficiency of some sort exists in the food of stock in some localities is evidenced by reports received of extensive licking of earth by stock. The following are analyses of earth samples forwarded by graziers during the year with the statement that holes have been licked out of creek banks by stock:—

——	Torrens Creek.	Cloncurry.	Gladstone.	Roma.
	Per cent.	Per cent.	Per cent.	Per cent.
Water	2·77	3·38	5·02	5·66
Loss on ignition, Organic matter, &c.	*7·97	4·16	6·28	..
Insoluble in HCl	76·84	82·94	68·70	89·67
Lime	0·28	0·42	0·44	0·39
Magnesia	..	..	..	0·34
Iron and alumina	9·80	7·00	18·60	2·44
Phosphoric acid ..	0·24	0·35	0·04	0·07
Salt	2·10	1·75	0·74	0·82

* Containing phosphoric acid 0·85.

As will be seen, these soils contain a certain amount of salt, which may have attracted the attention of the stock, and the lime, phosphoric acid, and iron in the soils may be ingredients which are insufficiently supplied in their food material.

Fruit.

Besides samples of fruit obtained from the market and handed in by Fruit Inspectors to ascertain if samples came up to the recognised standards, 24 samples of different fruits were obtained and were submitted to very complete analyses. When further samples of fruits as sold in fruit shops throughout the year are obtained it is intended to publish all these analyses in the "Queensland Agricultural Journal."

The Director of Fruit Culture forwarded 19 samples of citrus fruit; these samples were taken from trees which are being tested for their suitability for budwood purposes.

Wheats.

Mr. R. E. Soutter, Wheat Experimentalist, handed in 24 samples of his crossbred wheats, with which he is experimenting for determination of "specific protein quality."

Mr. Goodchild, Senior Instructor in Agriculture, Rockhampton, forwarded 9 samples of wheat grown in the Rockhampton district for determination of "specific protein quality." The results of analysis are given below and they are of particular interest, in demonstrating the fact that these varieties grown in Rockhampton district last season more than hold their own when compared with similar varieties grown in other districts of Queensland.

Lab. No.	Variety.	Moisture.	Protein on 10 % Moisture.	Average Settling Time (mins.).	Specific Protein Quality.
		%	%		%
7178	B.F.G. 2627 ..	11·1	13·8	88	6·4
7179	C.C.C. 2701 ..	11·8	16·6	67	4·1
7180	C.C.C. 2705 ..	11·2	15·3	89	5·8
7181	C.C.C. 2910 ..	11·4	17·9	181	10·1
7182	P. x C.C.C. 3209	11·6	14·6	111	7·6
7183	S.E. x C.C.C. 3212	11·6	12·8	125	9·8
7184	Florence ..	11·1	14·0	117	8·4
7185	Sea Foam ..	11·5	18·6	201	11·3
7186	Pusa	12·0	13·7	156	11·4

A team of officers of the Department has been formed to investigate the problem of increasing the production of pineapples on existing plantations and it has been arranged that Mr. L. G. Vallance, B.Sc., be the soil chemist in this investigation. Mr. Vallance, who is a member of the Agricultural Chemist's staff, has been engaged since last May solely upon pineapple soil work.

Sawfly Investigation.

Mr. W. R. Winks, B.Sc., is conducting the experiments which the Department has undertaken to determine why the cattle eat the larvæ and to evolve possible means for eliminating the depraved appetite displayed by them. These experiments are being conducted in the field, where a firm of pastoralists has kindly made available two paddocks and a number of stock for the investigation of the trouble, and at the Animal Health Station at Yeerongpilly, where controlled feeding experiments are being carried out to ascertain whether the depraved habit is due to deficiency and, if so, the nature of such deficiency. Conditions have recently been suitable for a heavy breeding of the larvæ of the cattle-poisoning sawfly.

As Chairman of the Veterinary Medicines Board appointed under "*The Veterinary Medicines Act of* 1933," the following is reported. The Board held 12 meetings; 540 medicines were registered and 68 are pending registration.

Review is made by the Board of the labels attached to the samples of Veterinary Medicines received for registration, and when labels state what are considered as being extravagant claims from use of the medicine such claims are required to be deleted from label before registration is allowed.

E. H. GURNEY, Agricultural Chemist.

Table I.—ANALYSES OF QUEENSLAND SOILS.

Laboratory No.	Locality.	Description of Soils.	TOTAL ELEMENTS IN THE SOIL, CALCULATED ON SOIL DRIED AT 100° C.										Available Plant Food, Soluble in 1 per cent. Citric Acid.				Total Elements. Lb. per Acre, 12″ Deep.				Available Plant Food, Soluble in 1 per cent. Citric Acid. Lb. per Acre, 12″ Deep.			SOIL ACIDITY.			Remarks.
							Soluble in Hydrochloric Acid. Sp Gr. 1·115.																	PH.			
			Humus.	Combined Water and other Organic Matter	Chlorine.	Nitrogen.	Phosphoric Acid.	Lime.	Magnesia.	Potash.	Total Insoluble Matter.	Phosphoric Acid.	Lime.	Magnesia.	Potash.	Nitrogen.	Phosphoric Acid.	Lime.	Potash.	Phosphoric Acid.	Lime.	Potash.	Water Suspension 1 : 2	$\frac{N}{1}$ KCl. Suspension 1 : 2	Truog Test.	
			%	%	%	%	%	%	%	%	%	%	%	%	%											
3982	COOK— Saibai Island, Torres Strait	bl. f. l. ..	5·17	11·42	·147	·410	·82	2·78	·37	·01	51·91	·0703	·355	·0702	·008	13,785	27,565	83,500	372	2,362	11,920	261	7·57	..	Nil	
3983	Ditto	br. f. l. ..	3·85	9·65	·009	·280	·06	·18	·08	·08	65·72	·0038	·0218	·0039	·011	7,812	1,674	4,960	2,170	105	607	310	4·28	..	V. str.	
3984	Yarrabah Mission, Cairns	yl. br. s. l.	1·36	5·64	·025	·142	·05	·17	·18	·06	80·37	·0016	·0614	·0236	·0121	5,131	1,814	6,424	2,268	60	2,287	449	5·49	..	Med.	
3985	Ditto	br. l. ..	2·00	6·08	·076	·142	·07	·52	·07	·12	80·32	·0037	·0171	·0156	·0097	5,022	2,333	18,310	4,307	129	603	341	4·71	..	Str.	
3986	Ditto	gr. s. ..	1·30	·01	·002	·039	·002	·05	·03	·01	98·37	·0012	·0152	·0052	·0049	1,613	82	2,053	411	49	620	201	3·99	..	Str.	
3987	Ditto	gr. br. c. s. l.	·66	3·35	·005	·079	·03	·22	·19	·18	89·17	·0025	·1059	·0341	·0132	3,118	1,199	8,795	7,196	99	4,165	520	7·14	..	V. sl.	
3988	Ditto	gr. br. c. s. l.	·94	4·01	·004	·115	·13	·22	·20	·10	86·52	·0017	·0838	·0176	·0116	4,203	4,877	8,256	3,753	63	3,088	428	6·22	..	Sl.	
3989	Ditto	lt. gr. c. s. l.	1·37	2·89	·003	·120	·05	·17	·08	·18	90·75	·0027	·0812	·0086	·0073	4,363	1,849	6,287	6,656	100	2,964	266	5·73	..	Med.	
3990	Ditto	lt. br. c. s. l.	1·28	4·34	·003	·103	·09	·18	·24	·14	85·60	·0016	·0490	·0270	·0106	3,515	3,132	6,262	4,873	56	1,677	362	5·40	..	Med.	
3991	Ditto	gr. br. c. s. l.	·85	3·79	·007	·062	·12	·13	·18	·01	87·16	·0015	·0363	·0204	·0075	2,343	4,536	4,914	378	57	1,353	280	5·52	..	Med.	
3992	Ditto	gr. c. s. ..	1·41	1·41	·006	·063	·022	·10	·10	·127	91·2	·0007	·0351	·0043	·0097	2,152	891	4,052	5,146	28	1,422	393	5·23	..	..	
3993	Ditto	br. gr. m. s. s.	1·21	3·10	·003	·101	·034	·101	·082	·171	86·5	·0008	·0362	·0021	·0087	3,845	1,294	3,845	6,509	30	1,378	331	5·43	..	..	
3994	Ditto	br. gr. m. s. l.	1·83	5·5	·005	·119	·042	·102	·108	·098	79·6	·0014	·0376	·0125	·0078	3,851	1,359	3,301	3,171	45	1,217	252	5·37	..	..	
4052	Mapoon Mission Station, *via* Thursday Island	c. br. s. s...	2·23	4·17	·001	·057	·05	·11	·06	·01	84·19	·0048	·0551	·0449	·0040	2,208	1,971	4,337	394	185	2,147	154	5·58	..	..	
4053	Ditto	f. gr. br. s. s.	2·11	1·48	·001	·079	·04	·10	·03	·02	90·69	·0010	·0467	·0151	·0031	3,203	1,642	4,106	821	41	1,909	127	5·42	..	..	
4054	Ditto	d. gr. s. s...	1·32	1·92	·001	·062	·05	·22	·03	·005	92·34	·0027	·1322	·0119	·0043	2,697	2,175	8,701	217	117	5,725	187	5·74	..	..	
4055	Weipa Mission Station, *via* Thursday Island	r. br. s. l. ..	1·37	9·25	·002	·075	·03	·04	·01	·004	68·94	·0120	·0097	·0066	·0033	2,541	1,044	1,392	139	407	330	115	5·14	..	..	
4056	Ditto	br. s. l. ..	3·75	10·86	·003	·146	·06	·10	·04	·005	63·38	·0053	·0652	·0370	·0046	4,492	1,925	3,209	160	164	2,012	141	4·91	..	..	
4057	Ditto	c. br. sd. ..	·88	1·80	·003	·022	·03	·04	·04	·01	93·59	·0035	·0163	·0294	·0008	957	1,305	1,740	435	152	709	34	5·26	..	..	
4058	Cape Bedford Aboriginal Reserve	dk. r. f. s. l.	·86	3·45	·007	·068	·06	·08	·20	·008	84·16	·0025	·0295	·0032	·0040	2,478	2,219	2,958	296	92	1,076	144	5·41	..	Med.	
4059	Ditto	lt. ch. f. s. l.	1·30	8·41	·006	·128	·10	·11	·37	·005	60·20	·0019	·0476	·0016	·0019	3,913	3,182	3,500	159	57	1,460	57	5·22	..	Med.	
4060	Ditto	ch. f. s. l. ..	4·78	15·09	·007	·287	·15	·21	·31	·005	40·58	·0013	·0597	·0004	·0049	7,022	3,654	5,482	131	31	1,462	120	5·46	..	Med.	
4080	Anglican Mission Station, Night Island	br. l. ..	2·97	7·29	·007	·278	·06	·45	·55	·18	69·64	·0036	·2378	·0335	·0140	8,193	1,828	13,402	5,178	107	7,243	426	6·8	..	..	
4081	Ditto	br. s. l. ..	1·96	4·21	·006	·108	·03	·18	·17	·10	77·76	·0010	·0733	·0113	·0107	3,661	1,036	6,216	3,454	35	2,493	363	6·1	..	..	
4082	Ditto	gr. sd. ..	1·69	·08	·001	·039	·02	·15	·28	·09	96·58	·0017	·0614	·0249	·0055	1,580	810	6,078	3,647	47	2,472	223	6·3	..	..	
4098	Atherton	ch. l. ..	2·70	16·78	·003	·338	·35	·22	·22	·02	33·79	·0049	·1080	·0624	·0146	9,014	9,320	5,820	527	130	2,884	388	5·6	..	..	White Grub Experiment
4099	Ditto	ch. l. ..	1·86	15·50	·003	·209	·30	·19	·20	·02	34·98	·0035	·0601	·1127	·0080	5,712	8,173	5,146	452	96	1,643	218	5·4	..	..	

4102	Ditto	ch. l. ..	3·59	17·22	·003	·432	·23	·20	·27	·05	37·60	·0036	·0865	·1127	·0131	11,790	6,840	5,360	1,326	98	2,360	357	5·2	..	..	White Grub Experiment.
4103	Ditto	ch. l. ..	2·80	14·65	·003	·290	·22	·13	·17	·02	39·00	·0026	·0354	·0780	·0089	7,926	6,024	3,634	663	72	969	242	4·9	..	..	
4104	Ditto	ch. s. l. ..	4·06	16·10	·008	·419	·24	·23	·15	·04	38·36	·0019	·1240	·0179	·0103	11,010	6,380	6,102	1,109	50	3.262	273	5·53	..	..	
4105	Ditto	ch. s. l. ..	2·77	14·37	·004	·298	·23	·21	·29	·06	38·56	·0011	·0892	·0179	·0084	8,215	6,341	5,765	1,730	29	2,461	231	5·41	..	..	
4106	Ditto	lt. ch. s. l...	4·01	15·76	·005	·361	·20	·14	·10	·02	35·52	·0039	·0875	·0503	·0108	9,908	5,426	3.712	571	106	2,398	297	5·20	..	..	
4107	Ditto	r. s. l. ..	1·96	14·41	·005	·191	·20	·10	·07	·01	37·08	·0018	·0447	·0283	·0064	5,381	5,528	2,910	291	50	1,263	180	4·99	..	..	
4108	Ditto	ch. s. l. ..	3·22	15·48	·005	·343	·21	·14	·11	·04	38·17	·0032	·0931	·0209	·0129	9,782	5,928	3,853	1,186	92	2,656	368	5·19	..	..	
4109	Ditto	lt. ch. s. l...	2·01	13·52	·002	·195	·18	·11	·15	·06	37·90	·0018	·0648	·0357	·0091	5 684	5,085	3,290	1,795	51	1,885	263	5·38	..	..	
4110	Ditto	ch. s. l. ..	2·66	12·80	·001	·236	·13	·39	·33	·03	46·99	·0033	·1829	·0673	·0106	6,883	3,687	11,369	921	95	5,334	310	5·7	..	Med.	
4111	Ditto	ch. s. l. ..	2·69	12·27	·002	·265	·14	·19	·22	·02	47·52	·0052	·0165	·0909	·0118	7,744	3,995	5,531	615	154	482	344	4·6	..	Str.	
4112	Ditto	ch. s. l. ..	2·52	13·13	·004	·235	·16	·26	·27	·05	44·77	·0028	·1118	·1168	·0094	6,883	4,609	7,682	1,536	83	3,269	273	5 2	..	Med.	
4113	Ditto	ch. s. l. ..	2·55	12·80	·001	·266	·14	·12	·15	·02	47·37	·0050	·0183	·1538	·0091	7,607	3,924	3,320	604	142	525	260	4·4	..	Str.	
4114	Cape Bedford Mission, Cooktown	br. s. l. ..	1·62	2·79	·003	·074	·04	·06	·15	·13	88·42	·0034	·0193	·1248	·0136	2,680	1,468	2,203	4,773	121	698	492	4·7	..	Str.	
4115	Ditto	lt. gr. br. s. s.	1·22	1·93	·004	·063	·02	·03	·14	·12	92·03	·0013	·0051	·0214	·0106	2,209	712	1,069	4,275	46	178	374	4·3	..	Str.	
4116	Ditto	br. s. l. ..	·76	2·42	·005	·074	·03	·06	·15	·37	90·60	·0003	·0107	·0208	·0062	2,799	1,150	2,300	14,187	12	406	234	5·2	..	Str.	
4117	Ditto	lt. gr. w. l.	·20	2·55	·015	·057	·02	·04	·17	·39	91·40	·0003	·0068	·0096	·0082	2,162	772	1,544	15,058	12	259	313	4·7	..	Str.	
4118	Ditto	r. br. l. ..	·71	5·95	·007	·120	·04	·06	·28	·40	81·70	·0012	·0108	·0475	·0076	3,528	1,338	2,007	13,378	40	355	251	5·0	..	Med.	
4125	Aurukun Mission, *via* Thursday Island	br. s. s. ..	·15	2·[illegible]3	·009	·028	·01	·121	·014	·012	91·7	·0021	·0727	·0118	·0038	1,179	419	5,068	502	88	3,044	159	5·86	..	..	
4126	Ditto	b. s. s. ..	2·62	4·02	·007	·115	·011	·063	·018	·006	86·8	·0054	·008	·0089	·0049	4,316	413	2,364	225	202	300	184	4·3	..	..	
4127	Ditto	lt. gr. s. l...	1·18	4·76	·134	·115	·127	·180	·186	·248	84·1	·0123	·1161	·0337	·0099	4,472	4,938	7,000	9,642	478	4,514	388	4·8	..	..	
4132	Atherton .. F	r. l. ..	3·69	13·82	·014	·319	·24	·14	·09	·02	39·47	·0036	·0723	·0246	·0113	8,652	6,568	3 712	571	97	1,959	306	5·2	..	..	(4)
4133	Ditto .. F	r. l. ..	2·48	13·29	·014	·237	·26	·09	·06	·01	37·06	·0019	·0413	·0159	·0086	6,364	7,070	2,545	283	51	1,109	232	4·8	..	..	(5)
4134	Ditto .. F	r. cl. l. ..	1·78	12·07	·013	·135	·24	·07	·07	·01	37·01	·0008	·0711	·0115	·0072	3,578	6,380	1,942	277	22	1,883	191	4·7	..	..	(6)
4135	Ditto .. F	lt. gr. l. ..	3·11	5·65	·005	·239	·23	·07	·08	·16	81·80	·0031	·0222	·0072	·0085	7,860	7,693	2,342	5,352	100	729	277	4·5	..	..	(7)
4143	South Johnstone ..	lt. br. l. ..	2·2	6·2	..	·147	·140	·108	·258	·370	71·46	·0026	·0430	·0238	·0095	4,877	4,645	3,583	12,275	86	1,426	315	5·4	..	..	(a_1)
4144	Ditto	br. l. ..	1·9	6·5	..	·134	·122	·0876	·205	·219	68·69	·0013	·0395	·0098	·0076	4,300	3,915	2,811	7,028	42	1,267	244	5·2	..	..	
4145	Ditto	br. l. ..	2·5	7·8	..	·175	·153	·055	·20	·376	65·26	·0042	·0062	·0634	·0048	5,710	4,993	1,795	12,270	137	202	156	4·6	..	..	(b_1)
4146	Ditto	r. br. l. ..	1·3	7·9	..	·126	·110	·047	·183	·217	65·35	·0015	·0063	·0158	·0065	4,179	3,649	1,559	7,200	49	209	216	4·6	..	..	
4147	Ditto	y. cl. l. ..	3·0	6·7	..	2·07	·119	·114	·147	·735	72·6	·0039	·0598	·0023	·0095	6,416	3,689	3,534	22,780	121	1,854	294	5·3	..	..	(c_1)
4148	Ditto	br. y. cl. ..	1·36	7·12	·005	·200	·09	·09	·17	·93	69·64	·0009	·0282	·0041	·0027	..	..	..	..	..	..	..	4·9	..	..	
4149	Ditto	lt. gr. br. cl. l.	2·29	7·14	·004	·418	·09	·08	·15	·68	79·60	·0030	·0068	·0056	·0050	12,018	2,524	2,208	19,558	85	196	145	4·8	..	..	(d_1)
4150	Ditto	lt. y. gr. cl. l.	1·06	4·50	·003	·148	·05	·06	·13	·69	82·54	·0008	·0036	·0035	·0030	..	..	..	..	..	..	..	4·9	..	..	
4151	Ditto	br. l. ..	3·74	7·96	·004	·509	·09	·09	·20	·69	74·31	·0020	·0162	·0099	·0053	13,854	2,415	2,415	18,713	54	489	160	4·7	..	..	(e_1)
4152	Ditto	r. l. ..	1·73	5·78	·003	·208	·06	·06	·19	·65	77·11	·0008	·0053	·0020	·0036	..	..	..	..	..	..	..	4·9	..	..	
	BURKE—																									
3911	Watten, *via* Hughenden	gr. cl. ..	·80	8·64	·01	·131	·07	2·03	1·50	·66	69·06	·0088	·7614	·0735	·0326	4,346	2 422	67,340	21,890	292	25,260	1,081	7·93	..	Nil	
4030	Cloncurry	br. f. s. l. ..	1·20	6·37	·003	·161	·24	1·93	1·32	·15	78·04	·0705	·3780	·0877	·0308	5,422	7,943	65,272	5,180	2,379	12,763	1,040	8·01	..	..	
4067	Rosevale, *via* Nelia, Cloncurry Line	lt. gr. l. ..	1·07	3·07	·009	·037	·07	2·27	·71	·22	74·35	·0120	·8928	·0014	·0045	1,082	1,909	65,859	6,363	347	25,869	130	5·77	..	..	

Table I.—ANALYSES OF QUEENSLAND SOILS—*continued*.

Laboratory No.	Locality.	Description of Soils.	TOTAL ELEMENTS IN THE SOIL, CALCULATED ON SOIL DRIED AT 100° C.									Available Plant Food, Soluble in 1 per cent. Citric Acid.				Total Elements, Lb. per Acre, 12" Deep				Available Plant Food, Soluble in 1 per cent. Citric Acid. Lb. per Acre, 12" Deep.			SOIL ACIDITY.			Remarks.
							Soluble in Hydrochloric Acid, Sp. Gr. 1·115.																PH.			
			Humus.	Combined Water and other Organic Matter.	Chlorine.	Nitrogen.	Phosphoric Acid.	Lime.	Magnesia.	Potash.	Total Insoluble Matter.	Phosphoric Acid.	Lime.	Magnesia.	Potash.	Nitrogen.	Phosphoric Acid	Lime.	Potash.	Phosphoric Acid.	Lime.	Potash.	Water Suspension 1:2	$\frac{N}{1}$ KCl. Suspension 1:2	Truog Test.	
			%	%	%	%	%	%	%	%	%	%	%	%	%											
	BURKE—*continued*.																									
4120	Corella Plantation ..	br. cl. l. ..	1·90	9·68	·004	·173	·10	·23	·23	1·01	72·20	·0070	·0979	·0358	·0111	4,660	2,774	6,102	27,460	189	2,640	300	5·3	4·6	Med.	
4121	Ditto	lt. br. cl l.	1·84	6·69	·004	·201	·11	·11	·17	·85	76·40	·0052	·0315	·0174	·0087	6,342	3,560	3,560	26,858	165	997	275	4·5	4·1	Str.	
4122	Ditto	lt. gr. br. cl. l.	1·45	11·78	·003	·197	·08	·55	·18	·61	74·23	·0085	·3396	·0421	·0086	5,972	2,502	16,573	18,450	256	10,278	260	6·5	6·1	Nil	
4123	Ditto ,, ..	gr. br. l. ..	2·77	6·13	·004	·316	·14	1·02	·34	·79	76·44	·0117	·4070	·0487	·0108	8,543	3,883	27,459	21,357	316	10,998	291	7·5	7·3	Nil	
4124	Ditto	d. br. cl. l.	2·37	7·60	·003	·184	·12	·44	·18	·79	74·35	0083	·2452	·0780	·0073	5,306	3,557	12,744	22,842	240	7,054	210	6·7	6·1	Sl.	
	NORTH KENNEDY—																									
3958	Culpa Lands, North Queensland	r. cl. l. ..	1·77	15·13	·014	·186	·21	·11	·21	·01	31·13	·0008	·0141	·0098	·0029	4,036	4,540	2,306	288	17	306	63	6·00	..	V. str.	
3959	Ditto	gr. cl. l. ..	2·22	8·56	·016	·236	·04	·15	·22	·05	73·40	·0011	·0098	·0136	·0046	5,988	889	3,853	1,186	27	249	116	5·58	..	V. str.	
3960	Ditto	d. gr. l. ..	5·81	10·12	·007	·326	·06	·14	·13	·05	69·78	·0035	·0111	·0100	·0043	7,766	1,387	3,606	1,100	83	264	103	5·27	..	V. str.	
3961	Ditto	gr. l. ..	1·93	8·98	·004	·147	·03	·16	·12	·05	70·66	·0010	·0105	·0087	·0082	3,530	598	3,889	1,197	24	251	197	5·29	..	V. str.	
3962	Ditto	gr. l. ..	3·08	6·20	·016	·204	·01	·16	·11	·07	83·48	·0006	·0079	·0191	·0082	5,205	299	4,188	1,795	15	200	209	5·10	..	V. str.	
3963	Ditto	r. cl. l. ..	1·33	14·59	·023	·178	·24	·03	·22	·03	34·05	·0014	·0099	·0249	·0159	4,074	5,528	582	582	32	227	363	5·29	..	Str.	
3981	Herberton	ch. l. ..	3·52	16·76	·006	·165	·25	·63	·53	·015	35·42	·0024	·1754	·2998	·0128	4,129	6,222	15,837	368	59	4,386	320	7·21	..	..	
4050	Rollingstone P	gr. f. s. l. ..	2·0	2·2	..	·079	·035	·163	·055	·122	88·8	·0042	·0521	·0080	·0136	2,793	1,237	5,762	4,314	148	1,842	481	5·0	..	..	(1)
4051	Ditto .. P	lt. br. f. s. l.	·91	3·3	..	·063	·049	·163	·156	·122	87·1	·0014	·0305	·0080	·0064	2,364	1,839	6,116	4,578	52	1,144	240	5·0	..	..	(2)
4096	Home Hill Bowling Club	..	1·0	..	..	·09	..	..	..	..	..	·1094	·4368	·0108	·0135	3,300	..	..	..	4,016	16,030	495	7·78	..	..	
4136	Abergowrie, Ingham	gr. l. ..	2·90	8·67	·004	·331	·22	1·30	·74	·12	73·69	·0650	·3549	·0467	0169	9,393	6,282	30,794	3,291	1,846	10,069	479	6·3	..	..	
4137	Ditto	lt. gr. br. l.	2·44	7·06	·004	·188	·14	·44	73	·05	73·83	·0118	·1160	·0545	·0162	5,335	3,853	12,439	1,482	335	3,287	459	5·2	..	..	
4138	Ditto	gr. br. cs. s.	·74	2·51	·003	·079	·04	·16	·09	·08	90·32	·0060	·0630	·0429	·0122	3,012	1,544	6,178	3,089	228	2,402	463	6·2	..	..	
4139	Ditto	lt. br. s. l...	1·16	3·05	·005	·086	·04	·09	·08	·10	87·39	·0019	·0701	·0603	·0103	2,992	1,425	3,206	3,562	68	2,454	360	6·1	..	..	
4140	Ditto	gr. l. ..	2·58	6·61	·005	·169	·16	·64	·75	·10	74·73	·0101	·1575	·0516	·0145	4,782	4,568	17,971	2,741	286	4,453	441	5·4	..	..	
4141	Ditto	lt. gr. s. l...	·88	2·07	·004	·063	·06	·10	·10	·08	92·11	·0015	·0518	·0350	·0124	2,411	2,333	3,889	3,111	58	1,983	474	6·1	..	..	
4142	Dunk Island, *via* Tully	gr. br. l. ..	5·1	4·4	..	·202	·084	·156	·288	·381	78·27	·0045	·0744	·0196	·0118	6,261	2,604	4,836	11,810	139	2,306	366	5·7	..	..	
	MITCHELL—																									
3995	Barcaldine	gr. cl. ..	·90	4·61	·003	·088	·054	·85	·48	·19	81·33	·005	·242	·0648	·011	3,070	1,886	29,955	6,660	173	8,470	385	8·45	..	..	
3996	Ditto	..	Nil	11·29	·005	·023	·024	..	·23	·13	..	·001	·373	·013	·007	778	813	..	4,240	35	12,478	230	7·23	..	..	

4013	Ditto ..	..	br. gr. cl. l.	·20	4·86	·002	·055	·07	·81	·62	·13	81·73	·0191	·2895	·0593	·0118	1,525	2,094	22,730	3,590	532	8,082	329	7·56	..	Nil	
4014	Ditto ..	..	lt. br. cl. l.	·27	5·27	·002	·052	·04	1·21	·69	·19	80·75	·0051	·5386	·0519	·0078	1,395	1,240	34,720	5,580	146	15,490	223	8·73	..	Nil	
4015	Ditto ..	..	br. gr. cl. l.	·14	5·40	·008	·060	·04	·90	·52	·15	81·35	·0066	·3554	·0532	·0137	1,736	1,240	26,040	4,340	192	10,310	397	8·59	..	Nil	
	PORT CURTIS—																										
4043	Benaraby ..	..	dk. br. gr. l.	1·60	3·40	·001	·114	..	..	..	..	..	·0216	·1634	·0424	·0109	3,990	..	..	..	755	5,724	381	5·8	..	..	
4044	Ditto ..	..	lt. gr. br. l.	1·54	4·38	·001	·154	..	..	..	..	..	·0061	·1354	·0460	·0058	5,297	..	..	..	210	4,655	200	5·5	..	..	
	BURNETT—																										
3910	Coolabunia ..	..	r. br. cl. l.	1·92	9·26	·006	·215	·146	·175	·179	·05	54·0	·0036	·0349	·0075	·0140	6,431	4,368	5,354	1,496	108	1,044	418	..	..	..	
4017	Parish of Gayndah, county of Mackenzie		lt. br. gr. s. s.	1·16	2·52	..	·068	·085	·439	·430	·219	90·6	·0187	·1739	·0215	·0078	2,847	3,559	18,380	9,171	783	7,199	326	7·57	..	Nil	Por. 239
018	Parish of Taughboyne, county of Bowen		dk: gr. br. s. s.	1·21	3·18	..	·093	·099	·595	·265	·274	88·7	·0260	·2324	·0337	·0078	3,717	3,957	23,785	10,953	1,039	9,290	312	7·52	..	Nil	Por. 27
4019	Parish of Gayndah, county of Mackenzie		lt. br. s. l...	·81	2·56	..	·057	·047	·247	·192	·219	90·7	·0022	·0416	·0158	·0083	2,263	1,866	9,806	8,694	87	1,651	329	5·93	..	Sl.	Pors. 14V, 15V.
4020	Parish of Mundubbera, county of Mackenzie		lt. gr. br. s. s.	·9	1·6	..	·059	·070	·35	·226	·277	91·9	·0114	·0571	·0090	·0077	2,374	2,817	11,086	11,148	459	2,298	310	6·01	..	Sl.	Por. 9
4021	Parish of Taughboyne, county of Bowen		gr. s. l. ..	1·38	3·82	..	·086	·125	·536	·387	·227	85·7	·0238	·1039	·0133	·0103	3,063	4,453	19,095	8,086	848	3,701	367	5·89	..	Sl.	Por. 76
4022	Parish of Gayndah, county of Mackenzie		lt. br. s. s.	·76	3·24	..	·049	·032	·227	·201	·208	90·2	·0013	·0494	·0148	·0073	1,999	1,305	9,259	8,484	53	2,015	298	5·84	..	Sl.	Pors. 236, 237
4023	Parish of Taughboyne, county of Bowen		r. gr.-s. s...	·71	1·19	..	·036	·024	·198	·137	·153	93·0	·0016	·0385	·0138	·0096	1,409	939	7,752	5,991	62	1,507	380	6·5	..	V. sl.	Pors. 30, 31
4064	State Forest Reserve 298, near Goomeri	F	c. br. s. l...	7·64	19·17	·001	·693	·10	5·43	1·34	·13	53·95	·0298	·4597	·0031	·0063	10,888	1,591	85,373	2,121	469	9,225	99	7·51	..	..	(1)
4065	Ditto ..	F	c. br. gr. s. l.	6·92	16·10	·001	·635	·13	6·44	1·11	·15	59·23	·0075	·5329	·0016	·0060	2,599	2,546	127,695	2,969	148	10,572	119	7·55	..	..	(2)
4066	Ditto ..	F	c. br. gr. s. l.	3·97	9·83	·001	·459	·08	4·19	1·26	·16	65·76	·0092	·3898	·0006	·0078	13,462	2,436	122,740	4,568	271	3,752	228	6·67	..	..	(3)

Forestry Soils (Marked F).·. Soluble in 1 per cent. Citric Acid Solution $\left\{\begin{array}{l} Fe_2O_3 :—(1)\ ·069,\ (2)\ ·020,\ (3)\ ·202,\ (17)\ ·125,\ (18)\ ·124,\ (19)\ ·104. \\ Mn_3O_4 :—(1)\ ·039,\ (2)\ ·033,\ (3)\ ·036. \end{array}\right.$

	WIDE BAY—																										
3915	Dagun ..	P	d. br. l. ..	2·10	7·65	·003	·236	·131	·773	2·38	·887	60·2	·0006	·2702	·0456	·0151	7,701	4,275	25,220	28,940	19	8,810	493	..	..	..	(3)
3916	Kadanga ..	P	br. l. ..	2·64	5·03	·002	·208	·112	·457	1·0	1·46	75·0	·001	·174	·0668	·0200	5,695	3,229	13,170	42,090	28	5,014	576	..	..	..	(4)
3917	Dagun ..	P	d. br. l. ..	4·2	9·2	·002	·294	·152	·574	·285	·190	53·0	·002	·346	·0434	·0228	7,356	3,803	14,360	4,753	50	8,648	570	..	..	..	(5)
3918	Ditto ..	P	lt. br. l. ..	1·8	4·9	·002	·173	·069	·318	·429	1·55	75·3	·0028	·2158	·2591	·0159	5,410	2,157	9,946	48,460	87	6,748	497	..	..	..	(6)
3919	Amamoor ..	P	r. br. l. ..	2·24	6·60	·002	·198	·122	·693	·254	·251	63·6	·0034	·2082	·0219	·0110	6,300	3,882	22,050	7,986	108	6,390	350	..	..	..	(7)
3920	Ditto ..	P	ch. l. ..	2·46	8·22	·004	·205	·132	·432	1·23	·529	54·9	Nil	·1682	·0189	·0075	5,970	4,021	13,159	16,114	..	5,124	228	..	..	..	(8)
3923	Maleny ..	P	br. l. ..	7·62	17·98	·006	·580	·730	·188	·358	·294	27·40	·0105	·0956	·0176	·0094	16,560	20,842	5,368	8,394	299	2,729	268	5·19	..	..	(9)
3924	Ditto ..	P	d. r. br. l...	9·6	18·6	·004	·669	·553	·478	·573	·263	25·6	·0081	·2082	·0485	·0117	18,190	15,038	12,998	7,151	220	5,661	318	..	..	..	(10)
3971	East Kin Kin	..	lt. br. cl. l.	5·3	11·6	..	·440	·118	·196	·225	·262	67·1	·0057	·0566	·0093	·0175	6,212	1,667	2,768	3,699	139	799	247	4·63	..	..	
3972	Ditto ..	..	br. y. cl. l.	2·4	9·1	..	·306	·094	·130	·168	·273	69·2	·0027	·0103	·0014	·0079	5,786	1,805	2,496	5,242	52	198	151	4·31	..	..	
3973	Pomona ..	..	br. l. ..	4·8	6·4	..	·290	·264	1·169	·364	·345	72·7	·0467	·5076	·1215	·0128	3,076	2,798	12,395	3,659	495	5,384	136	7·37	..	..	
3974	Ditto ..	..	r. br. l. ..	1·1	5·7	..	·125	·123	·386	·360	·345	76·8	·0040	·2057	·0185	·0059	1,869	1,839	5,773	5,160	60	3,076	88	7·59	..	..	
3975	Kin Kin ..	..	br. cl. l. ..	3·2	10·6	..	·337	·172	·624	·272	·338	64·0	·0035	·2774	·0488	·0099	6,014	3,069	11,135	6,032	62	4,950	177	6·84	..	..	
4028	Eidsvold ..	..	..	..	..	·012	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
4029	Amamoor ..	P	d. br. cl. l.	1·89	7·83	·005	·182	·08	·20	1·26	·31	76·85	·0004	·0692	·1378	·0099	4,843	2,018	5,189	8,359	12	1,839	262	6·75	..	..	(11)
4048	Biggenden ..	..	gr. s. s. ..	1·5	1·0	..	·073	·012	·091	·063	·030	96·0	·0018	·0493	·0079	·0058	3,355	551	4,554	1,379	83	2,266	266	6·1	..	Sl.	

Table I.—ANALYSES OF QUEENSLAND SOILS—*continued.*

Laboratory No.	Locality.	Description of Soils.	TOTAL ELEMENTS IN THE SOIL, CALCULATED ON SOIL DRIED AT 100° C.									Available Plant Food, Soluble in 1 per cent. Citric Acid.				Total Elements, Lb. per Acre, 12″ Deep.				Available Plant Food, Soluble in 1 per cent. Citric Acid. Lb. per Acre, 12″ Deep.			SOIL ACIDITY.			Remarks.
							Soluble in Hydrochloric Acid, Sp. Gr. 1·115.																PH.			
			Humus.	Combined Water and other Organic Matter.	Chlorine.	Nitrogen.	Phosphoric Acid.	Lime.	Magnesia.	Potash.	Total Insoluble Matter.	Phosphoric Acid.	Lime.	Magnesia.	Potash.	Nitrogen.	Phosphoric Acid.	Lime.	Potash.	Phosphoric Acid.	Lime.	Potash.	Water Suspension 1 : 2	$\frac{N}{1}$KCl. Suspension 1 : 2	Truog Test.	
			%	%	%	%	%	%	%	%	%	%	%	%	%											
	WIDE BAY—*continued*—																									
4075	Boowoogum.. ..	br. s. ..	·20	1·51	·006	·023	·047	·32	·02	·11	92·30	·006	·049	·001	·0066	950	1,956	13,575	4,496	255	2,079	280	7·1	..	..	
4083	Imbil .. F	sawdust cover	2·4	12·2	..	·159	..	..	..	..	..	trace	·0976	·0978	·0081	..	..	..	..	..	..	..	6·28	..	..	(8)
4084	Ditto .. F	sand cover	2·1	9·4	..	·146	..	..	..	..	..	trace	·0818	·0529	·0060	..	..	..	..	..	..	..	6·82	..	..	(9)
4085	Ditto .. F	soil cover ..	2·3	10·8	..	·159	..	..	..	..	..	trace	·0994	·0718	·0050	..	..	..	..	..	..	..	6·29	..	..	(10)
4086	Ditto .. F	50 % soil and sand	2·0	9·8	..	·152	..	..	..	..	..	trace	·0915	·0454	·0040	..	..	..	..	..	..	..	5·95	..	..	(11)
4131	Kilkivan .. F	gr. br. l. ..	..	..	..	..	..	..	..	..	..	·0248	·2095	·0358	·0063	..	..	..	..	799	6,758	204	7·2	..	..	(12)
	WARREGO—																									
3929	Yerrel Station, Wyandra	y. gr. cl. s.	·32	6·36	·013	·036	·06	·41	·40	·18	75·80	·0015	·1377	·0503	·0074	1,257	2,219	14,055	6,285	52	4,790	255	6·59	..	..	
3932	Ditto	y. gr. cl. s.	·51	5·57	·016	·036	·05	·31	·24	·02	77·67	·0007	·0933	·0341	·0057	1,175	1,727	10,015	691	24	3,018	186	6·69	..	..	
3935	Ditto	y. r. cl. s...	·42	5·64	·005	·038	·08	·22	·13	·08	77·00	·0006	·0711	·0269	·0062	1,351	3,002	7,880	3,002	22	2,544	..	6·57	..	..	
	MARANOA—																									
4045	Noorindoo, Surat ..	br. l. ..	1·32	6·14	·007	·220	·08	·60	·58	·24	80·67	·0258	·2315	·0044	·0258	6,867	2,567	18,613	7,381	802	7,208	802	7·7	..	..	
	DARLING DOWNS—																									
3956	Inglewood	gr. l. ..	4·79	11·12	·027	·503	·05	·39	·09	·03	76·55	·0023	·0855	·0550	·0075	12,013	1,292	9,298	775	54	2,041	178	6·63	..	..	
3957	Ditto	gr. l. ..	2·56	6·40	·002	·269	·46	1·17	·32	·18	83·06	·2566	·4752	·0656	·0147	8,489	14,477	36,852	5,592	8,087	14,990	463	7·86	..	..	
3964	Glen Niven	gr. sd. ..	1·10	·60	·003	·045	·05	·23	·08	·09	96·64	·0309	·0405	·0057	·0043	1,933	2,148	9,882	3,867	1,323	1,732	185	5·64	..	Med.	(a)
..	(Subsoil of No. 3964)	br. gr. s.s.	·67	2·23	·002	·046	·02	·19	·07	·12	90·43	·0009	·0269	·0051	·0053	1,701	756	7,182	4,536	34	994	197	5·08	..	Str.	(b)
3965	Glen Niven	gr. sd. ..	·86	·27	·002	·028	·05	·18	·08	·07	97·82	·0300	·0321	·0047	·0022	1,195	2,135	7,685	2,989	1,272	1,362	94	5·76	..	Med. str.	(c) Little Leaf Disease o
..	(Subsoil of No. 3965)	gr. w. sd. ..	·43	·67	·002	·017	·01	·19	·06	·04	96·30	·0012	·0135	·0044	·0089	749	441	8,370	1,762	53	590	392	6·14	..	Sl.	(d) Apples.
3966	Glen Niven	br. gr. sd...	1·01	·81	·002	·045	·05	·20	·05	·13	96·20	·0239	·0413	·0051	·0038	1,970	2,189	8,756	5,692	1,038	1,790	166	5·68	..	Str.	(e)
..	(Subsoil of No. 3966)	br. sd. ..	·72	1·84	·002	·029	·02	·22	·06	·12	91·44	·0011	·0286	·0090	·0050	1,112	794	8,338	4,764	44	112	195	5·75	..	Med.	(f)
3967	Warwick	br. s. s. ..	·96	1·55	·003	·074	·02	·15	·09	·09	93·78	·0013	·0494	·0279	·0064	3,017	826	6,200	3,720	54	2,013	260	6·65	..	Nil	
3968	Ditto	gr. cl. l. ..	1·75	3·93	·004	·155	·06	·64	·65	·45	84·80	·0055	·1848	·0588	·0087	4,804	1,974	19,742	13,818	171	5,132	270	6·88	..	V. sl.	
4009	Toowoomba ..	ch. cl. l. ..	2·53	14·01	·005	·241	·30	1·05	·64	·05	42·47	·0054	·3380	·1346	·0031	6,312	7,783	27,382	1,441	141	8,846	81	7·66	..	V. sl.	
4016	Jondaryan	bl. cl. l. ..	1·7	12·7	·004	·159	·167	2·52	4·29	·114	55·4	·0009	·5266	·0654	·0071	4,669	4,904	74,010	3,348	26	15,460	208	8·28	..	..	
4119	Maryvale	d. gr. l. ..	5·25	10·90	·002	·382	·41	1·73	·16	·34	59·69	·0409	·3000	·1034	·0184	11,087	11,878	50,252	9,746	1,185	8,698	533	5·7	..	Sl.	

Soluble in 1 per cent. Citric Acid Solution :—Fe_2O_3—(a) ·064, (b) ·098, (c) ·058, (d) ·038, (e) ·123, (f) ·150.

Soluble in 1·1 sp. gr. HCl Solution :
Fe_2O_3 :—(a) ·44, (b) 1·64, (c) ·40, (d) ·52, (e) ·60, (f) 1·55.
Mn_3O_4 :—(a) ·0070, (b) ·0057, (c) ·0218, (d) ·0043, (e) 0069, (f) 0056.
Sulphates :—(a) trace, (b) trace, (c) trace, (d) trace, (e) trace, (f) trace.

3912	MORETON— Elimbah ..	P	r. br. s. l. ..	1·45	7·32	·002	·075	·01	·07	·06	·004	80·64	·0001	·0214	·0118	·0018	2,620	359	2,513	144	4	743	61	6·65	4·80	V. sl.	(12)	
3913	Ditto ..	P	r. br. s. l. ..	1·03	7·24	·001	·058	·01	·08	·07	·004	78·65	·0001	·0231	·0127	·0023	2,041	364	2,915	146	4	816	80	6·23	4·82	V. sl.	(13)	
3914	Ditto ..	P	lt. gr. s. s...	·76	3·04	·001	·057	·02	·06	·06	·01	93·09	·0010	·0255	·0122	·0059	2,315	826	2,480	413	41	1,042	240	6·09	4·76	V. sl	(14)	
3921	Deagon ..	P	gr. med. sd.	·95	·77	·003	·050	·084	·133	·063	·066	96·1	·0509	·0896	·0116	·0077	2,202	3,700	5,859	2,907	2,242	3,946	339	6·27	..	..	(15)	
3922	Ditto ..	P	lt. br. cs. s.	1·16	1·46	·007	·050	·150	·169	·072	·048	92·7	·0694	·0992	·0072	·0053	2,135	6,404	7,215	2,049	2,963	4,235	226	6·02	..	..	(16)	
3925	Montville ..	P	ch. l. ..	5·5	15·6	·008	·415	·297	·219	·116	·193	33·0	·0044	·1865	·0251	·0111	12,075	8,642	6,372	6,518	128	5,420	323	6·29	..	..	(17)	
3926	Woombye ..	P	gr. s. s. ..	1·73	3·74	·008	·131	·06	·31	·07	·05	91·79	·0083	·0839	·0190	·0112	4,525	2,105	10,523	1,754	284	2,887	386	5·18	..	..	(18)	
3927	Ditto ..	P	lt. br. s. s.	·86	2·14	·006	·039	·05	·25	·06	·02	94·71	·0088	·0544	·0073	·0054	1,485	1,904	9,520	762	331	2,048	202	5·81	..	..	(19)	
3928	Palmwoods ..	P	br. s. l. ..	1·91	4·78	·005	·139	·13	·22	·05	·09	82·02	·0107	·0660	·0132	·0144	4,725	4,417	7,135	3,058	350	2,169	472	5·73	..	..	(20)	
3936	..		r. br. s. l. ..	1·37	..	..	·018	..	..	..	..	..	·0026	·0146	·0119	·0064	..	..	..	..	..	..	..	5·91	..	..		Fused Needle Disease Experiment.
3937	..		lt. r. br. sd.	·75	..	..	·022	..	..	..	..	..	·0020	·0108	·0098	·0088	..	..	..	..	..	..	..	6·09	..	..		
3938	..		lt. br. s. l...	·57	..	..	·018	..	..	..	..	..	·0018	·0127	·0090	·0030	..	..	..	..	..	..	..	6·05	..	..		
3939	..		lt. br. s. l...	·98	..	..	·025	..	..	..	..	..	·0017	·0168	·0065	·0022	..	..	..	..	..	..	..	6·17	..	..		
3940	..		lt. br. s. l...	·93	..	..	·018	..	..	..	..	..	·0024	·0145	·0083	·0024	..	..	..	..	..	..	..	6·36	..	..		
3941	..		lt. br. sd. ..	·57	..	..	·020	..	..	..	..	..	·0008	·0273	·0120	·0030	..	..	..	..	..	..	..	6·47	..	..		
3942	..		gr. s. l. ..	1·0	..	..	·028	..	..	..	..	..	·0005	·0096	·0025	·0030	..	..	..	..	..	..	..	5·91	..	..		
3943	..		lt. br. s. l...	·83	..	..	·038	..	..	..	..	..	·0006	·0186	·0067	·0035	..	..	..	..	..	..	..	5·94	..	..		
3944	..		br. r. s. l. ..	1·03	..	..	·046	..	..	..	..	..	·0005	·0783	·0067	·0021	..	..	..	..	..	..	..	6·34	..	..		
3945	..		r. s. l. ..	1·29	..	..	·057	..	..	..	..	..	·0005	·0842	·0067	·0021	..	..	..	..	..	..	..	6·34	..	..		
3946	..		lt. br. l. ..	·93	..	..	·055	..	..	..	..	..	·0006	·0149	·0108	·0040	..	..	..	..	..	..	..	5·62	..	..		
3947	..		lt. br. s. l...	·81	..	..	·040	..	..	..	..	..	·0005	·0125	·0073	·0078	..	..	..	..	..	..	..	5·75	..	..		
3948	..		y. br. sd. ..	·20	..	..	·028	..	..	..	..	..	trace	·0124	·0066	·0020	..	..	..	..	..	..	..	5·96	..	..		
3949	..		y. gr. sd. ..	·50	..	..	·017	..	..	..	..	..	trace	·0187	·0051	·0029	..	..	..	..	..	..	..	6·05	..	..		
3950	..		br. s. l. ..	1·0	..	..	·068	..	..	..	..	..	trace	·0085	·0036	·0020	..	..	..	..	..	..	..	5·81	..	..		
3951	..		d. r. br. s. l.	1·5	..	..	·056	..	..	..	..	..	trace	·0139	·0065	·0016	..	..	..	..	..	..	..	5·29	..	..		
3952	..		r. br. s. l. ..	·47	..	..	·023	..	..	..	..	..	trace	·021	·0114	·0179	..	..	..	..	..	..	..	6·36	..	..		
3953	..		br. s. l. ..	1·42	..	..	·077	..	..	..	..	..	trace	·030	·0064	·0009	..	..	..	..	..	..	..	6·05	..	..		
3954	..		br. s. l. ..	·68	..	..	·036	..	..	..	..	..	trace	·0151	·0075	·0040	..	..	..	..	..	..	..	6·03	..	..		
3955	..		br. s. l. ..	·80	..	..	·040	..	..	..	..	..	trace	·0234	·0060	·0010	..	..	..	..	..	..	..	5·68	..	..		
3969	Blackbutt ..	..	lt. ch. l. ..	1·23	11·13	·003	·144	·01	·23	·21	·07	64·23	·0004	·0855	·0747	·0065	4,034	313	6,567	1,876	12	2,398	181	6·07	..	Sl.		
3970	Buderim ..	..	gr. s. l. ..	·90	5·61	·003	·315	·05	·21	·33	·39	85·78	·0076	·0606	·0227	·0092	9,287	1,563	6,254	11,570	225	1,786	272	4·83	..	Str.		
3976	Tallebudgera	..	y. cl. l. ..	1·1	·69	..	·121	·063	·129	·231	·173	72·8	·0009	·0282	·0110	·0035	3,619	1,884	3,859	5,174	27	843	111	4·8	..	..		
3997	Palmwoods ..	P	ch. s. l. ..	2·4	7·8	·004	·162	..	..	..	..	..	·0136	·1249	·0093	·0040	..	..	..	..	433	3,974	127	6·1	..	..	(21)	
3998	Ditto ..	P	ch. s. l. ..	2·1	7·0	·005	·144	..	..	..	..	..	·0201	·1076	·0093	·0040	..	..	..	..	667	3,569	133	5·9	..	..	(22)	
3999	Ditto ..	P	gr. pr. s. s.	1·01	2·29	..	·039	..	..	..	..	..	·0117	·056	·0244	·011	..	..	..	..	470	2,270	446	5·72	..	..	(23)	
4000	Glass House Mountains	P	r. br. s. s...	1·54	7·56	..	·113	..	..	..	..	..	·0026	·073	·041	·010	..	..	..	..	93	2,560	356	5·7	..	..	(24)	
4001	Ditto ..	P	lt. br. s. l...	1·11	4·23	..	·074	..	..	..	..	..	·0009	·039	·0102	·009	..	..	..	..	34	1,457	340	5·18	..	..	(25)	
4002	Woombye ..	P	lt. choc. s. s.	1·48	6·02	..	·091	..	..	..	..	..	·0034	·0419	·0156	·008	..	..	..	..	120	1,509	291	6·19	..	..	(26)	
4003	Montville ..	P	r. br. l. ..	3·29	18·10	..	·252	..	..	..	..	..	·0025	·132	·047	·008	..	..	..	..	74	3,884	225	5·01	..	..	(27)	
4004	Ditto ..	P	s. br. l. ..	5·43	25·45	..	·427	..	..	..	..	..	·0065	·0431	·0113	·015	..	..	..	..	169	1,115	388	4·55	..	..	(28)	

Table No. 1—ANALYSES OF QUEENSLAND SOILS—*continued.*

Laboratory No.	Locality.	Description of Soils.	TOTAL ELEMENTS IN THE SOIL, CALCULATED ON SOIL DRIED AT 100° C.									Available Plant Food, Soluble in 1 per cent. Citric Acid.				Total Elements, Lb. per Acre, 12″ Deep.				Available Plant Food, Soluble in 1 per cent. Citric Acid. Lb. per Acre, 12″ Deep.			SOIL ACIDITY.			Remarks.
							Soluble in Hydrochloric Acid, Sp. Gr. 1·115.																PH.			
			Humus.	Combined Water and other Organic Matter	Chlorine.	Nitrogen.	Phosphoric Acid.	Lime.	Magnesia.	Potash.	Total Insoluble Matter.	Phosphoric Acid.	Lime.	Magnesia.	Potash.	Nitrogen.	Phosphoric Acid.	Lime.	Potash.	Phosphoric Acid.	Lime.	Potash.	Water Suspension 1 : 2	$\frac{N}{1}$KCl. Suspension 1 : 2	Truog Test.	
			%	%	%	%	%	%	%	%	%	%	%	%	%											
	MORETON—*continued*—																									
4005	Montville .. P	choc. l. ..	5·5	15·9	·01	·528	..	..	..	..	..	·0131	·0852	..	·0079	..	..	..	..	377	2,456	228	4·97	..	..	(29)
4006	Ditto .. P	br. l. ..	5·2	15·6	·006	·367	..	..	..	..	..	·0041	·0452	..	·0103	..	..	..	..	113	1,253	285	4·5	..	..	(30)
4007	Woombye .. P	br. s. s. ..	1·3	2·7	·004	·090	..	..	..	..	..	·0108	·0384	..	·0078	..	..	..	..	405	1,441	292	4·8	..	..	(31)
4008	Ditto .. P	gr. s. s. ..	2·64	3·35	·004	·177	..	..	..	..	..	·0102	·0421	..	·0108	..	..	..	..	342	1,385	355	4·59	..	..	(32)
4010	Upper Yarraman ..	lt. choc. l...	3·96	13·62	·005	·325	·16	·88	·28	·03	53·86	·0015	·2856	·0802	·0040	9,632	4,690	25,953	938	44	8,459	119	7·14	..	Sl.	
4011	Beaudesert	gr. cl. ..	2·08	8·96	·003	·173	·33	1·64	1·34	·07	63·03	·0248	·2033	·1382	·0026	5,154	9,863	49,000	2,227	738	6,058	76	6·81	..	Sl.	
4024	Yarraman .. F	choc. l. ..	2·46	12·01	·014	·329	·26	·44	·05	·002	51·10	·0257	·0494	·0057	·0017	8,962	6,983	11,930	58	698	1,344	47	6·71	..	V. sl.	(13)
4025	Ditto .. F	br. l. ..	3·17	13·19	·012	·415	·28	·50	·07	·004	50·08	·0279	·0437	·0070	·0039	11,230	7,566	13,380	116	757	1,181	105	7·40	..	Nil	(14)
4026	Ditto .. F	lt. br. l. ..	3·16	8·55	·012	·247	·09	·20	·07	·002	67·42	·0067	·0155	·0052	·0017	6,883	2,458	5,531	62	188	430	46	4·97	..	Str.	(15)
4027	Ditto .. F	gr. br. l. ..	3·26	8·41	·014	·199	·06	·21	·07	·01	75·02	·0045	·0167	·0054	·0100	4,968	1,428	5,140	286	111	417	248	4·91	..	Str.	(16)
4046	Haigslea, *via* Walloon	y. br. cl. l.	·6	5·1	..	·128	·112	·175	·254	·106	81·2	·0054	·0641	·0151	·0050	4,455	3,898	6,092	3,689	188	2,231	174	6·2	..	..	
4047	Ditto	d. r. br. cl. l.	1·7	7·4	..	·235	·181	·468	·595	·130	68·7	·0062	·1448	·0168	·0011	7,029	5,414	14,000	3,888	185	4,332	33	6·6	..	..	
4031	Yarraman	..	7·61	15·67	..	·451	..	..	..	..	..	·015	·066	·020	·007	..	..	..	..	..	..	..	4·84	..	..	White Grub Investigation.
4032	Ditto	..	6·76	14·86	..	·570	..	..	..	..	..	·002	·488	·058	·028	..	..	..	..	..	..	..	6·54	..	..	
4033	Ditto	..	4·43	14·77	..	·379	..	..	..	..	..	·006	·102	·027	·015	..	..	..	..	..	..	..	5·18	..	..	
4034	Ditto	..	4·98	17·26	..	·444	..	..	..	..	..	·0047	·113	·017	·023	..	..	..	..	..	..	..	4·65	..	..	
4035	Ditto	..	24·08	19·69	..	1·14	..	..	..	..	..	·004	·126	·004	·013	..	..	..	..	..	..	..	5·07	..	..	
4036	Ditto	..	5·05	11·70	..	·420	..	..	..	..	..	·002	·208	·068	·013	..	..	..	..	..	..	..	5·39	..	..	
4037	Ditto	..	7·1	14·3	..	·429	..	..	..	..	..	·0122	·0693	·0173	·0180	..	..	..	..	..	..	..	4·84	..	..	
4038	Ditto	..	4·4	11·0	..	·439	..	..	..	..	..	·0011	·345	·0363	·0245	..	..	..	..	..	..	..	6·07	..	..	
4039	Ditto	..	5·4	14·9	..	·444	..	..	..	..	..	·0086	·1407	·0242	·0224	..	..	..	..	..	..	..	5·62	..	..	
4040	Ditto	..	4·5	13·1	..	·381	..	..	..	..	..	·0043	·0776	·0208	·0189	..	..	..	..	..	..	..	4·86	..	..	
4041	Ditto	..	24·7	13·3	..	1·09	..	..	..	..	..	·0044	·1026	·0184	·0176	..	..	..	..	..	..	..	5·03	..	..	
4042	Ditto	..	5·3	10·9	..	·517	..	..	..	..	..	·0022	·2230	·0239	·0166	..	..	..	..	..	..	..	5·64	..	..	
4049	Ipswich	lt. br. cl. l.	1·8	7·6	..	·194	·087	·202	·406	·154	70·7	·0024	·0538	·0224	·0155	5,802	2,604	6,042	4,606	72	1,609	464	5·4	..	..	
4063	..	br. slty. sd.	4·1	14·5	..	·775	·986	1·247	·218	·088	61·6	·3454	·6574	·1320	·0151	21,750	26,814	33,910	2,393	9,392	17,875	410	5·1	..	..	
4068	Pimpama	lt. br. s. l...	3·12	9·50	·001	·366	..	..	..	..	..	·0142	·3654	·0439	·0117	9,814	..	..	..	382	9,803	314	6·35	..	Sl.	
4069	Ditto	d. gr. s. l...	9·4	9·4	..	·586	..	..	..	..	..	·0234	·3810	·0881	·0110	10,678	..	..	..	426	7,276	200	5·71	..	Med.	
4070	Ditto	y. br. s. l...	1·66	4·77	·001	·168	..	..	..	..	..	·0034	·1095	·2573	·0051	5,152	..	..	..	105	3,366	156	5·57	..	Med.	
4071	Ditto	br. s. l.	4·2	6·8	..	·285	..	..	..	..	..	·0176	·1320	·0491	·0063	3,030	..	..	..	198	1,402	67	5·57	..	Med.	

4072	Ditto		y. br. s. l.	1·97	4·41	·001	·163	..	..	..	..	..	·0063	·0222	·0049	·0048	5,038	..	..	..	196	684	148	4·17	..	Str.	
4073	Tallebudgera		lt. gr. br. s. l.	3·2	7·5	..	·232	..	..	..	..	..	·0063	·0813	·0345	·0170	6,939	..	..	..	194	2,432	508	4·84	..	..	
4074	Ditto		y. br. s. l.	2·6	6·0	..	·185	..	..	..	..	..	·0037	·0289	·0210	·0039	5,632	..	..	..	116	880	118	4·86	..	..	
4076	Ipswich		y. br. cl. l.	·60	8·43	·003	·059	·05	·91	·64	·006	61·84	·001	·145	·006	·0055	1,675	1,406	25,720	179	30	4,098	155	6·7	..	..	
4077	Brisbane		gr. f. s. silt	1·75	3·00	·004	·308	·02	·11	·01	..	92·98	·0024	·030	·0015	..	4,448	725	3,868	..	83	1,036	..	5·6	..	..	
4078	Ditto		gr. f. s. silt	1·08	1·98	·004	·0734	·014	·08	·01	..	93·20	·0028	·052	·0016	..	2,910	559	3,357	..	112	2,079	..	5·7	..	..	
4079	Ditto		gr. sd.	1·11	1·85	·004	·0789	·010	·064	·01	·02	95·56	·0007	·014	·0016	·015	2,921	372	2,347	..	26	521	..	5·0	..	..	
4087	Yarraman		choc. s. l.	6·13	15·88	..	·468	..	..	..	..	..	·0064	·1098	·0213	·0213	..	..	..	..	..	..	..	4·86	..	..	White Grub Investigation
4088	Ditto		choc. s. l.	4·60	13·64	..	·542	..	..	..	..	..	·0007	·5400	·0810	·0297	..	..	..	..	..	..	..	5·63	..	..	
4089	Ditto		choc. cl. l.	4·61	12·81	..	·411	..	..	..	..	..	·0057	·1850	·0665	·0191	..	..	..	..	..	..	..	5·97	..	..	
4090	Ditto		br. cl. l.	3·77	14·29	..	·380	..	..	..	..	..	·0058	·2535	·0165	·0158	..	..	..	..	..	..	..	5·79	..	..	
4091	Ditto		d. br. s. l.	22·0	14·97	..	1·192	..	..	..	..	..	·0037	·1604	·0162	·0251	..	..	..	..	..	..	..	5·75	..	..	
4092	Ditto		r. cl. l.	3·59	11·01	..	·395	..	..	..	..	..	trace	·1616	·0234	·0168	..	..	..	..	..	..	..	5·27	..	..	
4093	Benarkin Nursery	F	gr. br. l.	3·73	6·38	·003	·214	..	..	..	..	..	·0199	·1268	·0294	·0367	6,207	..	...	..	578	3,681	854	6·0	..	..	(17)
4094	Ditto	F	gr. br. s. l.	2·23	6·14	·003	·165	..	..	..	..	..	·0095	·1943	·0321	·0187	5,038	..	..	..	289	5,930	571	5·6	..	..	(18)
4095	Ditto	F	gr. br. s. l.	3·88	4·16	·010	·164	..	..	..	..	..	·0144	·1066	·0251	·0164	5,081	..	..	..	447	3,297	531	5·3	..	..	(19)
4128	Boonah		gr. cl. l.	·9	7·2	·006	·165	·044	·47	·725	·381	74·9	·004	·1125	·0303	·0137	4,936	1,316	14,060	11,396	120	3,362	410	5·5	..	..	
4129	Ditto		br. l.	·9	6·9	·012	·186	·186	·932	·816	·415	76·7	·0177	·2224	·0583	·0093	5,868	5,868	29,400	13,090	558	7,016	293	5·5	..	..	
4130	Ditto		gr. cl. l.	1·2	7·14	·008	·191	·190	·894	·665	·358	75·4	·0214	·1868	·0138	·0118	6,076	6,045	28,445	11,390	681	5,946	375	5·5	..	..	
4153	Ipswich		s. s.	..	..	..	·113	·341	·283	·054	·268	91·5	..	..	..	..	3,903	11,775	9,774	9,256	.	..	..	4·6	..	..	
	NEW SOUTH WALES—																										
3977	Banyabba		gr. s. s.	·90	1·89	..	·022	..	..	..	..	..	·0011	·0317	·0148	·0146	..	..	..	..	..	..	..	5·08	..	..	Fused Needle Disease.
3978	Ditto		gr. s. s.	·85	1·79	..	·028	..	..	..	..	..	·0008	·0289	·0150	·0117	..	..	..	..	..	..	..	4·90	..	..	
3979	Ditto		lt. gr. s. s.	·52	1·37	..	·017	..	..	..	..	..	·0014	·0226	·0148	·0099	..	..	..	..	..	..	..	5·03	..	..	
3980	Ditto		gr. br. s. s.	·59	1·42	..	·011	..	..	..	..	..	·0011	·0209	·0126	·0117	..	..	..	..	..	..	..	4·81	..	..	
	HAWAII—																										
4061	Hawaiian Soils	P	..	2·6	..	..	·325	·150	·35	·344	·458	37·3	..	..	..	..	..	..	..	..	..	..	..	4·61	..	..	(33)
4062	Ditto	P	..	..	..	..	..	·233	·497	·334	·458	35·0	..	..	..	..	..	..	..	..	..	..	..	5·41	..	..	(34)

Pineapple Soils (Marked P):

Replacable Potash (K) as m.e. :—(1) ·87, (2) ·25, (3) 1·23, (4) 1·36, (5) 6·42, (6) 2·26, (7) ·23, (8) ·60, (9) ·52, (10) 1·29, (11) ·54, (12) ·089, (13) ·042, (14) ·133, (15) ·36, (16) ·34, (17) ·69, (18) ·17, (19) ·27, (20) ·46, (21) ·77, (22) ·87, (23) ·27, (24) ·37, (25) ·12, (26) ·19, (27) ·29, (28) ·16, (29) ·22, (30) ·33, (31) ·41, (32) ·52, (33) 4·16, (a_1) ·28, (b_1) ·26, (c_1) ·39, (d_1) ·2, (e_1) ·2.

Carbon (C) :—(1) 1·26, (2) 1·1, (3) 1·8, (4) 2·58, (5) 4·5, (6) 1·92, (7) 2·1, (8) 1·5, (9) 5·12, (10) 6·4, (11) 3·19, (12) 2·12, (13) 1·68, (14) 1·04, (15) ·54, (16) 1·11, (17) 1·98, (18) 2·38, (19) ·97, (20) 2·55, (21) 3·2, (22) 3·2, (23) 1·51, (24) 2·13, (25) 1·37, (26) 1·43, (27) 3·80, (28) 5·36, (29) 4·93, (30) 4·0, (31) 1·51, (32) 2·54, (33) 2·2, (34) 2·9.

Replacable Phosphoric Acid (P_2O_5) as m.e. :—(3) ·110, (4) ·092, (5) ·031, (6) ·20, (7) ·15, (8) Nil, (9) Nil, (10) Nil, (12) ·058, (13) ·043, (14) ·050, (15) 2·79, (16) 4·54, (17) Nil, (18) ·36, (19) ·27, (20) ·18, (a_1) Nil, (b_1) Nil, (c_1) Nil, (d_1) ·02, (e_1) ·02.

Manganese (Mn_3O_4) soluble in Hydrochloric Acid of 1·1 sp. gr. :—(3) 6·6, (7) 1·2, (8) 3·25, (11) 1·61, (33) 5·0, (34) 5·0.

Replacable Calcium (Ca.) as me. :—(21) 7·5, (22) 6·0, (23) 3·8, (24) 3·9, (25) 2·2, (26) 2·8, (27) 17·1, (28) 4·2, (29) 6·0, (30) 3·45, (31) 2·6, (32) 1·7, (a_1) 2·1, (b_1) ·1, (c_1) 2·0, (d_1) ·2, (e_1) ·9.

Table II.—SOME QUEENSLAND SOILS (PHYSICAL PROPERTIES AND MECHANICAL ANALYSES).

Laboratory No.	Locality.	Description of Soils.	Ph. Water Suspension 1 : 2.	Properties of the Soil.								Mechanical Analyses.							Chemical Analyses.		
								Capillarity (in Inches).													
				Apparent Specific Gravity.	Weight of Soil per Acre, 12″ deep.	Capacity for Water.	Absorbed Weight of Water, 12″ deep.	After 3 Hours.	After 6 Hours.	After 24 Hours.	After 48 Hours.	Fine Gravel. 1–2 m.m.	Coarse Sand. ·2–1 m.m.	Fine Sand. ·04–·2 m.m.	Silt. ·01–·04 m.m.	Fine Silt. ·002–·01 m.m.	Clay. Less than ·002 m.m.	Organic Matter and Water.	Humus.	Other Organic Matter and Combined Water.	Nitrogen.
					Tons.	%	Tons.					%	%	%	%	%	%	%	%	%	%
	COOK—																				
4098	Atherton	choc. l.	5·6	1·02	1,238	63	780	4½	5½	6	6¼	·78	3·79	14·90	17·21	25·64	18·30	19·49	2·70	16·78	·338
4099	Ditto	choc. l.	5·4	1·04	1,263	63	796	9½	11½	13	13¼	·64	2·90	7·80	12·55	29·10	29·63	17·37	1·86	15·50	·209
4100	Ditto	choc. l.	5·4	1·06	1,287	64	824	7½	9	11¼	11¾	·44	2·43	19·10	14·22	27·03	15·80	20·98	3·41	17·57	·408
4101	Ditto	choc. l.	5·4	1·06	1,287	68	875	8½	10	12¾	13½	·33	2·39	13·64	14·56	29·81	20·92	18·35	2·03	16·32	·268
4102	Ditto	choc. l.	5·2	1·06	1,287	68	875	6½	7	8	8¼	1·46	3·00	14·31	13·73	31·28	15·40	20·81	3·59	17·22	·432
4103	Ditto	choc. l.	4·9	1·06	1,287	70	901	10	12	13¼	13½	1·15	3·27	11·05	12·43	34·31	20·34	17·45	2·80	14·65	·290
4104	Ditto	choc. s. l.	5·53	1·02	1,238	63	778	8¼	9	12	13	1·17	4·78	23·36	14·47	25·12	10·94	20·15	4·06	16·10	·419
4105	Ditto	choc. s. l.	5·41	1·06	1,287	64	823	11	12½	16¾	18½	·69	4·10	20·89	17·82	27·88	11·48	17·14	2·77	14·37	·298
4106	Ditto	lt. choc. s. l.	5·20	1·05	1,275	67	853	8½	9½	11¾	12¼	·58	3·19	16·96	15·29	28·95	15·26	19·77	4·01	15·76	·361
4107	Ditto	r. s. l.	4·99	1·07	1,299	62	804	7	7¾	9¼	9½	·22	2·74	12·35	13·40	28·90	26·02	16·36	1·96	14·41	191
4108	Ditto	choc. s. l.	5·19	1·09	1,323	61	808	6	6¾	8¾	9½	·52	3·50	14·33	16·47	30·37	16·11	18·70	3·22	15·48	·343
4109	Ditto	lt. choc. s. l.	5·38	1·10	1,336	60	800	9	10	13	14½	·28	3·20	18·15	17·89	30·52	14·45	15·52	2·01	13·52	·195
4110	Ditto	choc. s. l.	5·7	1·13	1,372	48	659	7	9	14	16¼	1·1	5·3	25·1	15·5	23·3	14·1	15·5	2·66	12·80	·236
4111	Ditto	choc. s. l.	4·6	1·13	1,372	48	659	9½	10½	14	15	·8	4·8	11·5	13·6	28·2	26·1	15·0	2·69	12·27	·265
4112	Ditto	choc. s. l.	5·2	1·13	1,372	54	741	11¼	13	16	17½	1·3	4·6	16·0	16·9	31·8	13·7	15·7	2·52	13·13	·235
4113	Ditto	choc. s. l.	4·4	1·11	1,348	53	715	7¾	8¼	11¾	14	1·1	4·6	9·5	10·8	29·0	29·6	15·4	2·55	12·80	·266
4132	Gadgarra, Atherton F	r. l.	5·2	1·05	1,275	56	713	5¼	6	7¼	7¾	2·03	5·12	9·05	10·30	32·32	23·68	17·51	3·69	13·82	·319
4133	Ditto F	r. l.	4·8	1·04	1,263	60	758	7	7½	8½	9	·42	1·95	5·19	9·04	32·66	34·98	15·76	2·48	13·29	·237
4134	Ditto F	r. cl. l.	4·7	1·02	1,238	58	717	9½	11	13¼	15	·15	1·17	4·65	6·21	22·82	51·16	13·85	1·78	12·07	·135
4135	Ditto F	lt. gr. l.	4·5	1·23	1,493	33	493	3½	4¾	7½	9	·76	15·33	27·53	12·73	23·93	10·95	8·76	3·11	5·65	·239
4143	South Johnstone	lt. br. l.	5·4	1·22	1,481	36	533	9¾	12¼	17½	21	·1	4·9	40·2	10·0	20·7	15·8	8·4	2·2	6·2	·147
4144	Ditto	br. l.	5·2	1·18	1,433	40	573	8	9½	12½	16¼	Nil	3·4	38·1	13·0	19·8	18·0	8·4	1·9	6·5	·134
4145	Ditto	br. l.	4·6	1·20	1,457	41	597	10½	12¾	16½	20	·1	1·2	34·0	13·2	21·1	16·0	10·3	2·5	7·8	·175
4147	Ditto	y. cl. l.	5·3	1·14	1,384	43	595	9	11½	15	18½	·1	2·1	8·9	23·0	41·8	14·0	9·7	3·0	6·7	·207
4149	Ditto	lt. gr. br. cl. l.	4·8	1·16	1,408	47	662	8	9¾	12¾	14½	·8	3·6	18·5	24·1	33·8	9·8	9·4	2·29	7·14	·418
4150	Ditto	lt. y. gr. cl. l.	4·9	1·19	1,445	45	650	8¼	10¾	16	19	·5	2·0	18·3	29·0	31·7	13·1	5·6	1·06	4·50	·148
4151	Ditto	br. l.	4·7	1·11	1,348	48	647	7¼	8¾	11½	13	1·3	6·2	19·5	19·2	31·5	10·5	11·8	3·74	7·96	·509
4152	Ditto	r. l.	4·9	1·19	1,445	51	737	9	11½	17	19¾	2·1	5·0	22·6	20·2	29·5	12·4	7·5	1·73	5·78	·208
	NORTH KENNEDY—																				
4050	Rollingstone	gr. f. s. l.	5·0	1·30	1,578	36	567	8	10½	15½	18½	1·6	8·3	55·6	10·1	14·2	6·1	4·1	2·0	2·2	·079
4051	Ditto P	lt. br. f. s. l.	5·0	1·38	1,675	40	670	9½	11½	17¼	20¼	6·6	11·2	44·4	12·1	14·2	7·3	4·2	·91	3·3	·063
4097	Home Hill Bowling Club P	..	..	..	..	..	..	..	..	..	..	7·8	71·2	12·4	1·5	2·5	1·5	3·1	..	..	..
	PORT CURTIS—																				
4043	Benaraby	d. br. gr. loam	5·8	1·31	1,590	48	763	8¼	10¾	14	15½	·1	Nil	64·5	15·4	12·8	2·3	4·9	1·60	3·40	·114
4044	Baffle Creek, Rosedale	lt. gr. br. l.	5·5	1·29	1,566	51	799	7½	9½	12½	14¼	5·6	·9	45·1	18·9	19·5	4·1	5·8	1·54	4·38	·154

	BURNETT—																					
4017	Parish of Gayndah		lt. gr. br. s. s.	7·57	1·54	1,869	25	467	8¾	11	16	19	2·7	13·1	36·3	5·5	7·1	1·7	3·6	1·16	2·52	·068
4018	Parish of Taughboyne		d. gr. br. s. s.	7·52	1·47	1,785	30	535	9	10¾	14½	16½	2·4	38·4	41·1	6·9	6·3	·9	4·3	1·21	3·18	·093
4019	Parish of Gayndah		lt. br. s. l.	5·93	1·46	1,773	29	514	10	11¾	17	20	·2	7·1	64·4	11·2	10·2	3·6	3·3	·81	2·56	·057
4020	Parish of Mundubbera		lt. gr. br. s. s.	6·01	1·48	1,797	31	557	7	8	9¾	10¾	·9	54·3	32·8	3·5	4·0	2·3	2·5	·9	1·6	·059
4021	Parish of Taughboyne		gr. s. l. ..	5·89	1·31	1,591	35	557	9	10¼	15½	18½	·1	1·2	58·4	15·3	15·6	3·1	5·2	1·38	3·82	·086
4022	Parish of Gayndah		lt. br. s. s.	5·84	1·5	1,821	27	491	10¼	12	19¼	20¾	·2	13·2	59·3	11·1	8·3	4·6	4·0	·76	3·24	·049
4023	Parish of Taughboyne		r. gr. s. s.	6·5	1·44	1,748	27	471	11¾	14¾	19¼	21½	·2	21·7	59·3	7·6	5·2	3·4	1·9	·71	1·19	·036
	WIDE BAY—																					
3971	East Kin Kin		lt. br. cl. l.	4·63	·90	1,092	..	..	2	2½	4½	5½	6·3	2·6	9·2	10·4	33·7	20·3	16·9	5·3	11·6	·440
3972	..		br. y. cl. l.	4·31	1·04	1,263	..	..	4¾	6	8¾	10½	6·5	3·7	12·2	15·5	32·2	18·9	11·5	2·4	9·1	·306
3973	Pomona		br. l. ..	7·37	1·0	1,214	..	..	4	5½	9½	12½	·3	·7	27·7	20·8	35·2	4·8	11·2	4·8	6·4	·290
3974	Ditto		r. br. l.	7·59	1·1	1,335	..	..	4½	10½	6	13	·2	·3	27·2	19·6	38·0	6·8	6·8	1·1	5·7	·125
3975	Kin Kin		br. cl. l.	6·84	1·05	1,275	..	..	3	3½	4½	5	1·0	1·7	16·6	14·9	39·1	13·9	13·8	3·2	10·6	·337
4028	Eidsvold		..	..	..	..	..	..	..	..	..	..	Nil	Nil	13·38	20·63	40·23	14·36	11·40	..	..	..
	WARREGO—																					
3929	Yerrel Station, Wyandra		y. l. ..	6·59	1·36	1,651	42	693	8½	14½	17½	20¼	Nil	1·2	51·9	18·0	15·7	5·1	8·0	·32	6·36	·036
3930	Ditto		gr. cl. l.	..	..	..	..	..	..	..	..	..	Nil	1·3	46·5	17·2	19·1	6·0	7·9	..	..	..
3931	Ditto		..	6·17	..	..	..	..	..	..	..	..	Nil	1·3	39·0	18·6	22·8	7·5	8·1	·51	5·57	·036
3932	Ditto		y. gr. cl. l.	6·69	1·27	1,542	34	524	10	14	16¼	19	Nil	4·0	53·8	16·3	13·8	4·0	5·4			
3933	Ditto		y. gr. cl. l.	..	..	..	..	..	..	..	..	..	Nil	3·5	47·6	17·0	16·3	7·2	5·8	..	..	..
3934	Ditto		..	7·4	..	..	..	..	..	..	..	..	Nil	3·1	50·5	18·3	13·8	7·6	5·9	·42	5·64	·038
3935	Ditto		y. rd. cl. l.	6·57	1·38	1,675	33	553	11¾	20	24	26¾	Nil	2·7	54·7	16·6	14·8	2·8	6·1			
	MORETON—																					
3976	Tallebudgera		y. cl. l. ..	4·8	1·1	1,335	..	..	3½	4½	6½	8	1·4	·1	17·0	18·8	41·5	13·4	8·0	1·1	6·9	·121
4024	Yarraman	F	ch. l. ..	6·71	1·07	1,299	47	610	6½	7	8	8½	2·83	5·90	24·60	14·18	23·28	15·07	14·47	2·46	12·01	·329
4025	Ditto	F	br. l. ..	7·40	1·07	1,299	55	714	6¼	6¼	7¼	8	2·70	7·80	28·97	16·72	19·44	7·90	16·37	3·17	13·19	·415
4026	Ditto	F	lt. br. l.	4·97	1·13	1,372	33	453	9	10½	14¼	16½	·93	10·56	29·34	16·81	21·85	9·11	11·71	3·16	8·55	·247
4027	Ditto	F	gr. br. l.	4·91	1·05	1,275	38	485	5¼	6¼	9	10½	6·50	9·46	29·36	16·36	21·22	5·81	11·67	3·26	8·41	·199
4037	Yarraman		..	4·84	..	..	..	..	..	..	..	..	·3	2·0	19·0	12·8	26·5	18·0	21·4	7·1	14·3	·429
4038	Ditto		..	6·07	..	..	..	..	..	..	..	..	2·6	5·6	24·3	20·5	23·9	7·7	15·4	4·4	11·0	·439
4039	Ditto		..	5·62	..	..	..	..	..	..	..	..	5·2	11·6	7·3	8·0	20·7	26·9	20·3	5·4	14·9	·444
4040	Ditto		..	4·86	..	..	..	..	..	..	..	..	·2	3·8	20·1	8·4	18·5	31·4	17·6	4·5	13·1	·381
4041	Ditto		..	5·03	..	..	..	..	..	..	..	..	3·2	4·7	17·7	8·2	16·3	11·8	38·1	24·7	13·3	1·09
4042	Ditto		..	5·64	..	...	..	..	..	..	..	..	·7	1·9	29·3	16·5	22·7	12·6	16·3	5·3	10·9	·517
4068	Pimpama		lt. br. s. l.	6·35	1·04	1,262	59	745	3½	4¼	5¾	6¾	8·4	6·1	17·5	13·5	32·3	9·4	2·1	3·12	9·50	·366
4069	Ditto		d. gr. s. l.	5·71	1·0	1,214	..	..	..	..	..	..	16·9	12·2	17·8	14·1	15·0	5·2	18·8	9·4	9·4	·586
4070	Ditto		y. br. s. l.	5·57	1·17	1,420	51	767	3¾	4½	5¾	6¼	5·9	4·9	14·1	13·8	32·2	22·9	6·4	1·66	4·77	·168
4071	Ditto		br. s. l.	5·57	1·15	1,396	..	..	..	..	..	..	14·0	13·8	24·3	18·2	13·4	5·3	11·0	4·2	6·8	·285
4072	Ditto		y. br. s. l.	4·17	1·18	1,433	54	774	3½	4	5¼	6¼	3·7	3·6	11·3	13·3	32·2	29·4	6·3	1·97	4·41	·163
4073	Tallebudgera		lt. gr. br. s. l.	4·84	1·1	1,336	..	..	7	8½	9¼	10	2·0	28·8	21·2	7·3	17·6	12·4	10·7	3·2	7·5	·232
4074	Ditto		y. br. s. l.	4·86	1·12	1,359	..	..	7¾	9	10	10½	1·2	26·5	17·8	9·8	18·8	17·3	8·6	2·6	6·0	·185

Table III.—ANALYSES OF PASTURE GRASSES, ROUGHAGE, HERBAGE, AND SHRUBS.

Number of Analysis.	Month Cut.	Name of Grass, Herbage, or Shrub.	Local Name.	District.	Analysis of Water-free Material. Crude Protein.	Crude Fat.	Carbohydrates.	Crude Fibre.	Crude Ash.	Lime, CaO.	Phosphoric Acid, P_2O_5.	Remarks. (Chiefly made by senders.)
					%	%	%	%	%	%	%	
27	June	*Triodia* sp.	Turpentine grass or Spinifex	Maxwelton	4·2	1·4	54·4	34·0	6·0	·245	·095	Only of value when very young or in seed, the seed heads being the valuable fodder.
28	June	*Bothriochloa* sp.	Desert Blue grass	Maxwelton	2·6	·7	50·6	32·9	13·2	·243	·098	Said to be the best grass in the desert country, and quite a valuable fodder.
32	June	*Canthium oleifolium*	Myrtle	Talwood (W.)	10·2	4·4	59·1	19·1	7·2	2·589	·141	Has a fair reputation as a fodder in drought times.
33	June	*Ventilago viminalis*	Supple Jack	Talwood (W.)	14·6	2·1	61·3	15·5	6·5	1·930	·227	Has a very good reputation as a fodder.
34	June	*Santalum lanceolatum*	Wild Plum (Sandalwood)	Talwood (W.)	7·9	1·8	68·8	12·5	7·4	1·087	·200	Has a fair reputation as a fodder in drought times.
35	June	*Geijera salicifolia*	Wilga	Talwood (W.)	12·5	4·3	58·9	13·1	11·2	3·717	·219	
36	June	*Acacia* sp.	..	Talwood (W.)	14·6	3·5	56·7	21·9	3·3	1·064	·167	Analysis of leaves only.
37	June	*Lyonsia eucalyptifolia*	..	Talwood (W.)	11·7	4·8	50·9	23·8	8·8	2·592	·174	
38	June	*Flindersia maculosa*	Leopardwood	Talwood (W.)	14·1	5·4	54·7	19·9	5·9	1·772	·256	Has a fair reputation as a fodder in drought times.
39	June	*Atalaya hemiglauca*	Whitewood	Talwood (W.)	12·8	2·4	50·0	28·8	6·0	·868	·333	Has a good reputation as fodder in south-western parts, but has been shown to produce "walk-about" disease in West Australia. The young shoots are claimed to produce staggers or shivers in stock in the central-west and north-west.
40	June	*Paspalidium* sp.	..	Talwood (W.)	5·8	·4	42·5	35·0	16·3	·358	·227	
41	June	*Chloris divaricata*	..	Talwood (W.)	3·7	..	..	..	..	..	..	Insufficient sample for complete analysis.
42	June	*Eriochloa* sp.	..	Talwood (W.)	3·3	..	..	..	..	..	..	Insufficient sample for complete analysis.
210	July	..	Barley	Oakey	..	..	..	..	16·7	·700	1·119	Magnesia (MgO) ·295.
211	July	..	Oats	Oakey	..	..	..	..	20·6	·519	·984	Magnesia (MgO) ·221.
658	July	Mixture *Chloris divaricata* and *Aristida* sp.	..	Roma (D.)	5·0	·8	49·9	34·8	9·5	·508	·159	The *Aristida* sp. (a three-pronged Spear grass or Wire grass) constitutes the bulk of the sample but in the absence of better material it is impossible to be certain of the identification. *Chloris divaricata* like most of the Chloris or Windmill grasses make excellent bottom fodder for sheep.
659	July	*Aristida leptopoda* (mostly)	Three-pronged Spear grass	Roma (D.)	3·7	·9	51·7	32·2	11·5	·430	·267	Probably the best of the genus for fodder.
660	July	*Digitaria divaricatissima*	Blow-away or Windmill grass	Roma (D.)	5·5	·7	51·1	33·5	9·2	·575	·194	Identification is very doubtful in the absence of seed heads. The native digitaria are mostly excellent fodders.

1014	August ..	*Chenopodium*	Saltbush	Blackall	15·8	1·0	37·0	27·2	19·0	3·539	·233	Chlorine [illegible] per cent.
1185	..	..	Mitchell grass hay ..	Ilfracombe (R.D.) ..	5·8	1·5	48·7	34·2	9·8	·622	·276	Two and a-half years old. Stacked under a portable roof weighing 30 cwt. which tends to compress it.
1667	September ..	*Iseilema vaginiflora*	Red Flinders	Katherine (M.) ..	1·6	·6	48·8	36·8	12·2	·297	·052	Very poor material.
1668	September ..	*Dichanthium* sp.	..	Katherine (M.) ..	2·3	1·0	47·0	35·2	14·5	·369	·060	Classification not certain as sample contained no seed heads.
1669	September ..	*Enneapogon* sp.	..	Katherine (M.) ..	2·6	·6	46·3	40·3	10·2	·445	·108	
1670	September ..	*Setaria queenslandica* ..	..	Katherine (M.) ..	4·3	·9	49·3	34·8	10·7	·564	·217	
1671	September ..	*Themeda australis*	Kangaroo grass	Katherine (M.) ..	1·4	·8	46·2	38·6	13·0	·186	·059	
1672	September	*Brachyachne convergens* ..	Star grass	Katherine (M.) ..	2·8	·8	50·6	32·3	13·5	·387	·079	
1673	September ..	*Panicum decompositum* ..	Barley grass	Katherine (M.) ..	2·5	1·0	51·1	31·8	13·6	·530	·163	
1674	September ..	*Iseilema vaginiflora*	Red Flinders	Katherine (M.) ..	1·5	·8	44·4	37·5	15·8	·390	·035	
1675	September ..	*Dichanthium* sp.	..	Katherine (M.) ..	1·5	·8	47·0	33·2	17·5	·509	·026	
1676	September ..	*Sehima nervosum*	..	Katherine (M.) ..	1·6	·9	41·8	32·1	23·6	·539	·037	
1860	October ..	*Eragrostis curvula*	..	Toowoomba ..	17·8	1·2	44·2	30·3	6·5	·516	·585	Just flowering.
1861	October ..	..	..	Toowoomba ..	17·1	1·3	43·2	29·2	9·2	·608	·605	Just prior to flowering.
1862	October ..	..	Italian Rye grass ..	Toowoomba ..	24·1	1·3	38·9	20·9	14·8	·717	·799	Before bloom.
1863	October ..	*Phalaris tuberosa*	..	Toowoomba ..	28·6	1·9	34·9	19·9	14·7	·494	·654	Before bloom.
1864	October ..	*Bromus marginatus*	Perennial Prairie ..	Toowoomba ..	19·5	1·3	42·4	26·3	10·5	·613	·530	Just in bloom.
1865	October ..	..	Wimmera Rye	Toowoomba ..	20·8	1·6	37·9	25·8	13·9	·638	·676	In bloom.
1890	..	*Brachiaria praetervisa* Hay ..	..	Mackinlay (C.) ..	9·1	1·4	48·8	27·0	13·7	·611	·570	Contains small amounts of *Amarantus Mitchellii*, *Chrysopogon pallidus*, *Paspalidium jubiflorum* *Calotis hispidula*.
2354	November ..	*Helichrysum ramosissimum* ..	Small everlasting ..	Monto (R.)	6·8	1·4	44·2	32·8	14·8	·900	·523	In flower.
2355	November ..	*Heteropogon contortus* ..	Bunch Spear grass ..	Monto (R.)	5·2	·8	43·7	29·3	21·0	·186	·460	
2356	November ..	*Dichanthium sericeum* ..	Blue grass	Monto (R.)	5·5	·8	45·6	31·9	16·2	·320	·355	
2357	November ..	*Themeda australis*	..	Monto (R.)	4·2	1·0	48·6	32·2	14·0	·294	·363	
2358	November ..	*Bothriochloa intermedia* ..	..	Monto (R.)	5·9	1·0	49·2	29·6	14·3	·466	·257	
1204	..	Ensilage	..	Brisbane	4·8	1·3	49·3	33·9	10·7	·527	·780	
1205	..	Straw	..	Brisbane ..	10·5	·8	43·1	35·6	10·0	·669	·894	
2521	..	Chaff No. 1	..	Brisbane	6·3	1·7	45·4	36·7	9·9	·387	·618	
2522	..	Chaff No. 2	..	Brisbane	6·7	1·7	51·8	28·7	11·1	·905	·787	
3095	..	..	Annual Saltbush seed ..	Blackall (P.D.) ..	12·7	1·1	41·3	27·8	17·1	1·416	·350	

Table III.—ANALYSES OF PASTURE GRASSES, ROUGHAGE, HERBAGE, AND SHRUBS—*continued.*

Number of Analysis.	Month Cut.	Name of Grass, Herbage, or Shrub.	Local Name.	District.	Analysis of Water-free Material.							Remarks. (Chiefly made by senders).
					Crude Protein.	Crude Fat.	Carbohydrates.	Crude Fibre.	Crude Ash.	Lime, CaO.	Phosphoric Acid, P_2O_5.	
					%	%	%	%	%	%	%	
3722	January	*Cynodon plectostachyum*	Budgee grass	Toowoomba	30·1	2·5	35·2	18·8	13·4	1·184	·831	Before bloom.
3723	January	*Digitaria eryantha*	Woolly Finger grass	Toowoomba	19·1	1·8	37·8	29·4	11·9	·380	·637	Very early bloom.
3724	January	*Digitaria polevansii*	..	Toowoomba	18·7	1·8	40·7	26·8	12·0	·421	·562	Very early bloom.
3725	January	*Digitaria valida*	..	Toowoomba	20·5	2·2	34·8	29·6	12·9	·501	·709	Very early bloom.
3726	January	*Digitaria pentzii*	..	Toowoomba	20·0	2·1	39·0	27·2	11·7	·358	·628	Very early bloom.
3727	January	*Brachiaria decumbens*	..	Toowoomba	20·8	2·2	38·4	26·1	12·5	·649	·684	In full bloom.
3728	January	*Brachiaria brizantha*	..	Toowoomba	16·6	1·6	43·4	27·2	11·2	·387	·588	In full bloom.
3729	January	*Pennisetum ciliare*	..	Toowoomba	21·0	1·7	34·4	28·8	14·1	·505	·618	In full seed.
3730	January	*Pennisetum massaicum*	..	Toowoomba	24·1	1·9	31·2	25·9	16·9	·632	·818	In early bloom.
3731	January	*Urochloa tricopus*	..	Toowoomba	27·2	1·4	33·2	23·2	15·0	·566	·886	Before bloom.
3732	January	*Urochloa pullulans*	..	Toowoomba	24·7	1·1	34·3	23·7	16·2	·766	·860	In early bloom.
3733	January	*Eragrostis tenuifolia*	..	Toowoomba	23·1	2·4	38·6	26·7	9·2	·539	·709	In full bloom.
3734	January	*Chloris pycnothrix*	..	Toowoomba	17·2	1·6	40·1	28·6	12·5	·705	·533	Late growth, still blooming but has shed much seed.
4249	February	*Erochloa panicoides*	..	Toowoomba	11·4	·6	44·4	30·9	12·7	·714	·434	In flower; appears palatable to stock.
4767	March	*Chloris pycnothrix*	..	Toowoomba	19·2	1·3	42·8	26·7	10·0	·600	·533	In flower and early seed.
4013	January	*Panicum flavidum*	Warrego Summer grass	Ilfracombe	13·3	1·1	41·0	31·5	13·1	·493	·529	
4037	February	*Astrebla lappacea*	Curly Mitchell grass	Nelia	8·1	1·3	46·2	28·6	15·8	·857	·472	
5637	..	Sample of Hay	..	Toogoolawah (C.)	10·6	·7	44·1	36·1	8·5	·626	·740	
2617	December	*Panicum antidotale*	Blue Panic	Biloela	7·5	1·4	51·8	30·0	9·3	·405	·872	Cut at 10 inches.
5372	April	*Panicum antidotale*	Blue Panic	Biloela	6·0	1·0	49·9	34·5	8·6	·517	·585	Cut at 10 inches.
5118	April	*Astrebla elymoides*	..	Biloela	6·5	1·5	49·3	33·2	9·5	·407	·658	Third year of growth.
5119	April	*Astrebla pectinata*	Curly Mitchell	Biloela	5·9	1·1	46·6	33·1	13·3	·467	·922	Third year of growth.
5120	April	*Melinis minutiflora*	..	Biloela	4·4	1·1	47·5	40·7	6·3	·184	·406	Third year of growth.
5121	April	*Astrebla triticoides*	..	Biloela	7·2	1·1	49·1	33·8	8·8	·341	·493	Third year of growth.

5124	April ..	*Digitaria pentzii*	..	Biloela	6·1	1·8	46·8	34·2	11·1	·380	·779	Third year of growth.
5125	April ..	*Digitaria milanjiana*	..	Biloela	6·4	1·6	42·2	38·2	11 6	·320	·753	Third year of growth.
5126	April ..	*Digitaria dilatatum*	..	Biloela	5·5	1·1	47·1	37·2	9·1	·272	·376	Third year of growth.
5127	April ..	*Pennisetum clandestinum* ..	Kikuyu	Biloela	6·1	·7	50·6	33·9	8·7	·438	·397	Third year of growth.
5368	April ..	Rhodes	..	Biloela	5·6	1·3	49·6	30·3	13·2	·461	·872	Grown on sandy clay box slope, low fertility, which has been under cultivation for 11 years. Grass in third year of growth.
5369	April ..	Rhodes	..	Biloela	11·3	·9	42·1	34·1	11·6	·536	·982	Grown on sandy clay box slope, low fertility, which has been under cultivation for 11 years. Grass in first year of growth.
5370	April ..	Panicum	..	Biloela	4·4	1·0	47·6	35·6	11·4	·404	·723	Grown on very fertile alluvial clay loam. Cut at hay.
5371	April ..	Panicum	..	Biloela	8·6	1·3	47·4	31·0	11·7	·387	·644	Grown on very fertile alluvial clay loam. Cut at hay.
5373	April ..	Sudan	..	Biloela	12·2	2·1	52·7	23·5	9·5	·377	1·046	Grown on very fertile alluvial clay loam. Cut at hay.
5374	April ..	Panicum	..	Biloela	7·6	2·1	53·5	27·7	9·1	·395	·786	Grown on very fertile alluvial clay loam. Cut at hay.
5376	April ..	Sudan	..	Biloela	7·7	1·2	45·2	33·1	12·5	·376	·904	Grown on very fertile alluvial clay loam. Cut at hay.
5379	April ..	Panicum	..	Biloela	8·0	1·3	52·0	29·2	9·5	·266	·813	Grown on very fertile alluvial clay loam. Cut at hay.
5375	April ..	Sudan	..	Biloela	6·2	·8	45·9	37·1	10·0	·412	·781	Grown on good class forest sandy clay loam. Cut at hay.
5377	April ..	Rhodes	..	Biloela	18·2	1·3	38·5	26·7	15·3	·710	1·200	Grown on good class forest sandy clay loam. Cut at hay.
5378	April ..	Sudan	..	Biloela	5·8	1·1	48·4	34·9	9·8	·390	·617	Grown on good class forest sandy clay loam. Cut at hay.
5380	April ..	Panicum	..	Biloela	9·7	2·3	47·1	30·4	10·5	·294	·772	Grown on good class forest sandy clay loam. Cut at hay.
5381	April ..	Panicum	..	Biloela	8·5	1·9	51·8	27·2	10·6	·271	·710	Grown on good class forest sandy clay loam. Cut at hay.
5382	April ..	Rhodes	..	Biloela	18·4	1·0	36·7	27·0	16·9	·815	1·389	Grown on good class forest sandy clay loam. Cut at hay.
5369	May ..	*Geijera parviflora*	Wilga	Inglewood (B.) ..	17·3	5·6	58·3	10·2	10·6	2·615	·339	
5640	May ..	*Casuarina lepidophloia* ..	Belar	Inglewood (B.) ..	9·1	2·7	51·1	32·3	4·8	1·550	·112	
5641	May ..	*Casuarina luehmannii* ..	Bull Oak	Inglewood (B.) ..	10·0	1·2	46·1	37·9	4·8	·963	·191	
5642	May ..	*Atriplex nummularia*	Old Man Saltbush ..	Inglewood (B.) ..	21·5	·7	38·6	6·1	33·1	1·439	·365	Salt 14·9 per cent., MgO 1·367 per cent., K_2O 3·235 per cent., Fe_2O_3 ·046 per cent.
6095	May ..	*Sehima nervosum*	..	Katherine (W. and M.)	2·4	·7	42·7	35·7	18·5	·243	·066	Rainfall during the season below normal.
6096	May ..	*Themeda australis*	..	Katherine (W. and M.)	3·0	1·1	47·9	35·2	12·8	·294	·075	
6969	May ..	*Dactyloctenium* sp.	..	Gayndah	6·2	1·3	52·1	28·7	11·7	1·064	·572	This is a fairly common grass, allied to Button grass, but has not yet received a specific name. The grass is greatly relished by stock.
7269	June ..	*Acacia* sp.	..	Toowoomba ..	13·9	2·5	54·6	24·1	4·9	1·314	·225	While cattle will not eat the Brigalow leaves they readily consume those of this species.
7277	..	Hay sample	..	Charleville (M.) ..	5·2	1·4	48·8	34·7	9·9	·437	·247	Consists mainly of Flinders grass (*Iseilema membranaceum*) and Curly Mitchell grass (*Astrebla lappacea*), the former predominating. Taken from stacks comprising 200 tons in all.

REPORT OF SEEDS, FERTILIZERS, VETERINARY MEDICINES, PEST DESTROYERS, AND STOCK FOODS INVESTIGATION BRANCH.

During the year under review the outstanding features were as follows:—

The passing by Parliament of an entirely new Fertilisers Act and the issuing of regulations under same; the passing of an amendment to the Stock Foods Act; the unsatisfactory quality of the Canadian Wonder beans being offered for sale as seeds for sowing, and the consequent action by this Branch with respect to same; and the registration and labelling of lime for agricultural purposes.

BUILDING ALTERATIONS.

Consequent upon the building of a new wing to the Departmental building involving the loss of four windows in the Seed Laboratory, a considerable amount of inconvenience has been experienced; the readjustment necessary, however, gave the opportunity to rearrange this portion of the Branch and a small addition in floor space enabled the incubators to be grouped and isolated in a suitable room. At the same time the necessary arrangements were made to house the new apparatus on order.

ALTERATIONS TO OFFICE SYSTEM.

During the year under review a much desired reform has been carried out by changing over from a system of handling declarations, analyses, &c., by means of books and key indexes to a system of card indexes; this has involved a tremendous amount of work; the change-over has now been in operation for five months and the wisdom of the step taken, particularly with respect to the saving in time, has already been proved.

REGISTERED MATERIALS.

A departure has been made from the past practice of publishing in this report all registrations effected during the year. It is intended that, in future, such registrations will be published in the "Queensland Agricultural Journal" as opportunity occurs, or as necessity demands. Greater publicity to information of value to the farmer will be secured thereby and the work involved will be spread over a much longer period; this will allow of a more even distribution of operations under the Acts.

LABELS.

There are still a considerable number of labels used on pest destroyers, stock foods and veterinary medicines, that do not wholly comply with the requirements of the respective regulations; such labels are in a transition stage and are slowly being eliminated. New or reprinted labels complying with the requirements in full are being insisted upon.

In order to assist in this matter nothing is considered too much trouble with respect to calculating or checking drafts or printers' proofs submitted; the wisdom of this is clearly shown in the improved general standard of the labels now in use, and the improved value of same to the purchasers of the materials concerned.

ALLEGED SECRET INGREDIENTS.

We are hearing quite a considerable amount at present relative to the "secret ingredients" of certain materials coming under Acts administered by this Branch. Experience of such matters definitely indicates that the seller of a genuine article has no need to hide the identity of his material nor to invoke a mystic reference to a secret ingredient or formula.

Buyers of materials which come under the Fertilizers, Pest Destroyers, or Stock Foods Acts expect that a genuine article will have its ingredients or active constituents indicated in accordance with the law's requirements. In this respect such buyers are protected. They should, however, beware of the plausible salesman who is trying to sell them a cure-all, the "undeclared portion" of which is a great secret, when other materials sold for the same purpose and coming under the same Act or Acts have nothing to hide and place all of their cards on the table.

SAMPLING OF MATERIALS.

Considerable attention has been given to the construction of an efficient apparatus for drawing samples of liquids from the various containers upon the market; some of these containers, owing to their size, are very difficult to handle. Satisfactory results have been obtained by the combined application of principles based upon suction and siphoning.

INSPECTORS' VISITS.

During the year ending June, 1936, visits were paid to the following towns by inspectors under the various Acts; the figures following each town set out the respective numbers of visits made:—Bundamba, 3; Caboolture, 2; Cooroy, 1; Esk, 1; Eumundi, 1; Gatton, 1; Gympie, 3; Ipswich, 3; Kalbar, 1; Landsborough, 2; Lowood, 1; Nambour, 2; Palmwoods, 2; Toogoolawah, 1; Toowoomba, 3; Warwick, 1.

CORRESPONDENCE.

During the period under review, outward correspondence amounted to 3,247 letters and 1,065 Roneo letters.

INCREASE IN WORK.

The work of this Branch is increasing to such an extent that we are faced with the necessity of only carrying out operations of major importance and, unfortunately, as a consequence, we daily see much that should be done, left untouched.

PUBLICITY.

The following contributions by members of this Branch were made:—Queensland Agricultural Journal, Seeds every farmer should know; Pamphlet No. 1, Datura. Radio lectures over 4QG, "*The Fertilisers Act of* 1935"; "*The Stock Foods Amendment Act of* 1935"; "Storage of Seeds and Grain."

ACKNOWLEDGMENTS.

Agricultural Chemist.—Two hundred and thirty-three samples were analysed for this Branch by the Agricultural Chemist.

Mr. J. A. Kerr, Supervisor of St. Lucia Farm School for Boys rendered ready assistance to this Branch with respect to the carrying out of many trials throughout the year under review.

SEEDS ACTS, 1935-1936.

During the year ending June, 1936, 2,379 samples were examined at this Seed Testing Station, the actual tests carried out numbering 2,916; the following table gives details of the figures concerned:—

Seed Samples Received from.	Number of Samples.
Seed vendors	666
Growers selling seeds	80
Inspectors under the Seeds Acts	612
Inspectors under the Commerce Acts . .	850
Farmers who have purchased seed for their own sowing, therefore examined free . .	28
Government Departments	135
Referee samples	8
Repeat and experimental tests	537
Total germination tests	2,916

The number of seed samples received from vendors and Inspectors under the Acts has increased by 303 and 345 respectively over the previous year's figures. These increases are mainly due to the greater attention given to the quality of French beans being offered for sale, and also to the action of two sellers of seeds for sowing, who availed themselves of the facilities offered for obtaining information relative to the quality of their seeds before offering same for sale.

SUDAN SEED CERTIFICATION.

A Sudan seed certification committee has been formed; a comprehensive scheme covering the certification of Sudan seed as being free from certain objectional weed seeds, has been drawn up. At present efforts are being directed towards selecting a supply of seed suitable for propagation.

PASPALUM DILATATUM.

Unfortunately during the year under review this seed has been subjected to an unforeseen outbreak of ergot infestation, with the result that 22 samples out of 68 submitted for examination were found to be affected.

Roneo leaflets by Mr. R. B. Morwood, M.Sc., Plant Pathologist, dealing with this matter were issued by this Branch with each certificate relating to ergot infested *Paspalum dilatatum* seed.

It is understood that New Zealand has prohibited the entrance of *Paspalum dilatatum* seed unless it is accompanied by an official certificate stating that ergot is not present in greater quantity than 3 per cent. by weight.

Queensland, being a large grower and exporter of *Paspalum dilatatum* seed will suffer from the antipathy towards this seed that is sure to follow this unfortunate outbreak.

EXPERIMENTS CONDUCTED OR BEING CONDUCTED.

Storage of Maize and Beans with Fumigants.—The use of naphthalene and paradichlorobenzene as insect deterrents has necessitated an inquiry into their respective effects on germination.

In April, 1935, a series of experiments were laid down and after twelve months storage under the conditions stated, no losses in germination were detected in the following:—

Stored in air-tight jars—
- Maize with ¼% paradichlorobenzene.
- Maize with ¼% naphthalene.
- Canadian Wonder beans with ¼% paradichlorobenzene.
- Canadian wonder beans with ¼% napthalene.

Stored in linen bags—
- Maize with 10% paradichlorobenzene.
- Maize with 10% naphthalene.
- Canadian Wonder beans with 10% paradichlorobenzene.
- Canadian Wonder beans with 10% naphthalene.

The above percentages are by weight.

The experiment is being continued over a longer period.

Storage of Peas and Beans with respect to Viability.—Experiments were also started in order to obtain data relative to germination of peas and beans stored in bags and air-tight bottles in a cellar and on the first floor of a typical produce store, respectively.

Rhodes and Paspalum Seed Germination.—The lack of maturation of these grass seeds prevents a quick determination of their germination capacity; this problem has been continuously tackled since 1920, and although improved technique has been evolved, much still remains to be done before a germination test can be done in the short time the trade demands. This can be considered our major seed testing problem.

Couch Grass Germination.—*Cynodon dactylon* seed germination methods have been reviewed with the result that the "alternating temperatures" method is now used.

Discoloration of Peas when Cooked.—The investigation of the reason why certain peas sold for human consumption turned black on cooking led to the discovery that the grower had picked "coloured flowered" peas (*i.e.*, field peas) instead of eating peas, and had forwarded same to market; the use of bicarbonate of soda when boiling caused these field peas to turn black, whereas eating peas were not discoloured.

Germinating Capacity of Seeds Examined.—The following table sets out the germinating capacity of the samples submitted (other than seeds examined under the Commerce Act) to this Seed Testing Station for examination.

Germinating Capacity of the Seeds Examined during the Year 1935–36 for Purposes of the Pure Seeds Acts, and Samples containing Prohibited Weed Seeds.

Kind of Seed.	Germination.					Number of Samples.			
	Highest recorded during 1935-1936.	Standard prescribed by the Regulations.	Average of samples up to standard.	Average of samples below standard.	Lowest recorded during 1935-1936.	Up to germination standard.	Below germination standard.	Containing prohibited weed seeds.	Total number of samples examined.
Agricultural Seeds.	%	%	%	%	%				
Barley—									
Cape and Malting	99	85	84	67	63	12	3	..	15
Skinless	96	85	89	63	44	11	6	..	17
Beans—									
Mauritius	70	60	70	26	26	1	1	..	2
Rice	5	†75	..	5	5	..	1	..	1
Carrot, Field	14	55	..	8	2	..	2	..	2
Clovers—									
Lotus corniculatus (Birdsfoot trefoil)	8	†55	..	8	8	..	1	..	1
Lotus major (Greater birdsfoot trefoil)	9	†55	..	9	9	..	1	..	1
Trifolium alexandrinum (Berseem, Egyptian Clover)	99	†65	98	20	20	2	1	..	3
Trifolium hybridum (Alsike Clover)	53	†75	..	53	53	..	1	..	1
‡*Trifolium pratense* (Red Clover)	94	†75	93	34	16	4	2	..	6
Trifolinm repens (White Clover)	97	†70	80	60	59	7	2	..	9
Trifolium subterraneum (Subterranean Clover)	92	†70	89	..	85	3	..	..	3
Cowpeas	98	65	78	58	56	25	2	..	27
Cowpeas (average percentage of hard seeds)	..	..	13	..	..	..	..	..	..
Grasses—									
Agrostis tenuis	43	†60	..	43	43	..	1	..	1
Avena elatior	6	†60	..	6	6	..	1	..	1
Bromus marginatus	92	†50	84	..	72	3	..	..	3
Canary (*Phalaris canariensis*) Annual	97	70	92	56	56	19	1	..	20
Cocksfoot (*Dactylis glomerata*)	72	50	61	27	21	3	3	..	6
Couch (*Cynodon dactylon*)	92	30	79	..	58	8	..	..	8
Danthonia	49	†35	..	30	12	..	2	..	2
Festuca pratense	86	†50	86	..	86	1	..	..	1
Molasses (*Melinis minutiflora*)	25	†20	21	7	7	4	1	..	5
Panicum antidotale (Giant panic)	73	†40	72	..	72	2	..	..	2
Panicum muticum	3	..	..	3	3	..	3	..	3
Paspalum dilatatum	55	20	34	12	2	51	17	..	68
Phalaris tuberosa (Perennial)	74	†55	67	46	46	2	1	..	3
Prairie (*Bromus unioloides*)	98	50	88	7	7	28	1	..	29
Rhodes (*Chloris gayana*)	66	30	41	16	6	93	24	..	117
Rye	96	60	84	46	18	12	4	..	16
Timothy (*Phleum pratense*)	78	†60	78	..	78	1	..	..	1
‡Lucerne	96	65	88	58	54	64	2	..	66
Lucerne (average percentage of hard seeds)	..	..	11	..	..	..	..	..	..
Linseed	97	75	88	71	71	3	1	..	4
Maize	98	85	91	52	1	18	5	..	23
Mangel	*86	*55	*68	*48	*48	9	1	..	10
Millets—									
Panicum (*Setaria italica*)	97	70	93	..	82	29	..	1	30
Japanese (*Echinochloa crus-galli*, var. *edulis*, Syn. *Panicum crus-galli*)	98	70	90	65	65	26	..	1	27
White Panicum (*Echinochloa frumentacea*, Syn. *Panicum frumentaceum*)	98	70	90	60	55	23	3	..	26
French (*Panicum miliaceum*)	97	70	92	..	81	7	..	..	7
Oats	99	80	95	35	Nil	57	4	..	61
Peanuts	99	†60	95	..	80	36	..	..	36
Peas, Field (*Pisum arvense*)	98	75	96	..	92	8	..	..	8
Rape	98	70	90	61	50	7	4	..	11
Rye	97	80	89	53	30	15	6	..	21
Sheep's Burnet	72	†60	72	..	72	1	..	..	1
Sorghum (*Sorghum vulgare*)	97	70	85	32	Nil	39	8	..	47
Sudan Grass (*Sorghum Sudanense*)	95	70	85	50	3	70	11	5	86
Tobacco	98	55	93	..	80	32	..	..	32
Turnip, Field	93	65	93	..	93	1	..	..	1
Wheat	96	85	96	..	96	1	..	..	1
Vegetable Seeds.									
Beans, French—									
(Inspector's Samples, January and February)	98	75	87	44	Nil	81	75	..	582
(Inspector's Samples, March to May)	99	75	95	43	1	192	8	..	
(Merchants' Samples)	99	75	92	46	5	215	11	..	
Beet	*80	*55	*73	..	*66	2	..	..	2
Cabbage	78	65	72	..	66	3	..	..	3
Cauliflower	90	60	84	..	78	2	..	..	2
Cucumber	99	65	99	37	37	1	1	..	2
Lettuce	16	65	..	16	16	..	1	..	1
Mustard	84	70	84	..	84	1	..	..	1
Onion	93	60	81	37	18	8	4	..	12
Peas, Garden (*Pisum sativum*)	98	75	93	..	80	15	..	..	15
Pumpkin	98	65	91	37	2	11	4	..	15
Swede	87	65	76	..	65	2	..	..	2
Tomato	99	65	86	51	38	12	8	..	20
Total Number of Samples	..	..	..	..	..	1,283	239	7	1,529

* Clusters. † Proposed standards of germination.

‡ In accordance with current practice ½ of the hard seeds in Lucerne and Trifolium pratense are included in the total germination, while one-third of the hard seeds are included for other legumes.

It should be the practice of well run seed establishments to have all seed on hand tested annually for germination, so as to be in a position of security with regard to the quality of the stock being offered for sale.

All fresh seed before being placed into stock should also be tested. The above practice, unfortunately, is not carried out to any extent in this State; it is therefore necessary for visits to be made by Inspectors for the purpose of taking samples, and all merchants found holding seed not up to the standard prescribed by the Regulations are made to withdraw such seed from sale.

Some of the low germinating seed shown in the previous table is the result of the above-mentioned visits.

FAULTY SEEDS FOR SOWING.

The following table sets out the action taken under supervision of an inspector with respect to seeds which were offered for sale as seed for sowing, and were found not to comply with the standards prescribed on account of the reasons set out:—

Quantity.	Kind of Seeds.	Reasons for Action.	Action Taken.
57 lb. ..	Barley, Skinless	Low germination	Withdrawn from sale
51 bags ..	Beans, Canadian Wonder	Low germination	Crushed
1 bag ..	Beans, Canadian Wonder	Low germination	Sealed and seized
31 lb. ..	Cabbage	Low germination	Burnt
1 bag ..	Lucerne	Excessive amount of inert matter	Cleaned
1 bag ..	Oats	Low germination	Crushed
5 bags ..	Oats	Excessive inert matter and weeds	Withdrawn from sale
2 bags ..	Prairie Grass	Low germination	Burnt
220 bags ..	Prairie Grass	Low germination	Sealed and seized
4½ bags ..	Rye	Low germination	Crushed
1 bag ..	Rye	Low germination	Withdrawn from sale
½ bag ..	Sorghum	Low germination	Withdrawn from sale
½ bag ..	Sudan	Excessive amount weeds and dirt	Burnt

PANICUM MUTICUM.

Three samples of this seed were examined, all of which contained below 10 per cent. of caryopses, and, therefore, could not possibly comply with any reasonable standard.

It should be realised by growers that unless grass seeds contain caryopses (kernels) the samples cannot be expected to germinate; further, it should be noted that as a rule grasses that can be easily propagated by roots do not readily form seeds.

FRENCH BEAN SEEDS.

Queensland is almost entirely dependent on outside sources of supply for French bean seed for sowing. During 1935, owing to the poor quality of this commodity, it was found necessary to introduce exceptional methods of control involving the examination of each separate bag of Canadian Wonder bean seeds received at the port of Brisbane from overseas. This portion of the bean seeds examined is included in the table which sets out the germination of seeds examined under the Commerce Act, and is also referred to in the comments made thereon.

From the table, setting out the germination capacity of various seeds, it will be seen that an abnormal number of samples of French beans (582) were examined, including 156 samples obtained during January and February by inspectors when a vigorous campaign was introduced, involving as above mentioned the individual sampling of each bag, offered for sale. These samples were tested as quickly as possible and those bags containing seed below standard were sealed up.

Following this campaign both buyers and sellers were given free service in examination of Canadian Wonder beans, on condition that each bag was sampled separately. This service has been availed of to a large extent and resulted in 226 samples being sent here for examination, of which 11 failed to reach the prescribed standard.

Some purchasers will not now take delivery of seed before it has been tested, and the largest seller of bean seed in Queensland has all his supplies placed in the custody of this Branch at the Department, pending satisfactory germination results.

From March to May, inclusive, 200 official samples were taken, 8 of which were found faulty; altogether 51 bags of bean seed were ground under the supervision of an inspector.

The Regulations under the Pure Seeds Acts require that in the case of French beans—which include the Canadian Wonder variety—the minimum germination shall be 75 per cent. by count.

As a result of the action taken the Canadian Wonder beans that are now entering Queensland have an average germination of 95 per cent. in two days; it is obvious that the minimum standard of 75 per cent. cannot be considered as high—in fact, rather the reverse.

The rigid inspection of Canadian Wonder beans, as stated above, is being continued.

COMMERCE (TRADE DESCRIPTIONS) ACT 1905.

Seeds for Sowing.

The following table sets out particulars relative to the examination of seeds, from overseas, submitted by the Chief Quarantine Officer, Plants, to this Branch:—

GERMINATING CAPACITY OF THE PRINCIPAL SEEDS FOR SOWING EXAMINED FOR THE PURPOSES OF THE COMMERCE (TRADE DESCRIPTIONS) ACT, 1905, DURING THE YEAR 1935-36.

Kind of Seed.	Imported from—	Germination.					Number of Samples.			Approximate Quantity of Seed Imported, 1935-36.
		Highest recorded during 1935-36.	Percentage prescribed by Queensland Regulations.	Average of samples up to Queensland standard.	Average of samples below Queensland standard.	Lowest recorded during 1935-36.	Up to Queensland germination standard.	Below Queensland germination standard.	Total number of samples examined.	
		%	%	%	%	%				
Beans—										
Broad ..	New Zealand	98	75	98	..	98	1	..	1	½ bag
French ..	Norfolk Island, New Zealand, U.S.A.	99	75	95	35	35	70	1	71	72 bags
Lima ..	U.S.A., New Zealand	96	75	94	..	91	4	..	4	76 lb.
Mauritius ..	Papua	98	60	87	25	16	7	2	9	617 bags
Beet	England, New Zealand, Holland, Denmark, France, Germany, U.S.A., Japan	*95	*55	*70	..	*55	86	..	86	2,624 lb.
Cabbage ..	Holland, U.S.A., England, France, New Zealand, Denmark, Japan	98	65	86	..	66	61	..	61	417 lb.
Carrot	New Zealand, Holland, U.S.A., Denmark, France, England, Japan	92	55	71	..	56	55	..	55	1,529 lb.
Cauliflower ..	Denmark, France, England, Holland	97	60	86	..	64	14	..	14	66 lb.
Cucumber ..	U.S.A., New Zealand, England, France	98	65	94	25	25	23	1	24	232 lb.
Cocksfoot ..	New Zealand	78	50	64	..	51	5	..	5	10 bags
Cowpeas ..	Papua	92	65	79	..	67	2	..	2	4 bags
Clover—										
Red ..	New Zealand. England	96	†75	94	..	91	4	..	4	7 bags
White ..	New Zealand, England	89	†70	83	..	79	3	..	3	4 bags
Kohlrabi ..	Holland, England, Japan	93	†60	86	..	70	6	..	6	21 lb.
Lettuce ..	Holland, England, U.S.A., Denmark, New Zealand	99	65	91	..	75	23	..	23	120 lb.
Lupins	New Zealand	95	†60	95	..	95	1	..	1	3 bags
Mangel	England, Holland, France, Denmark, Germany ..	*90	*55	*71	*44	*44	34	1	35	44 cwt.
Marrow ..	U.S.A., New Zealand, France, England, Holland ..	98	65	88	..	70	20	..	20	293 lb.
Melon—										
Rock ..	U.S.A.	96	65	85	..	74	8	..	8	47 lb.
Water ..	U.S.A., New Zealand	97	60	84	..	70	25	..	25	206 lb.
Onion	New Zealand, France	89	60	78	..	65	7	..	7	29 lb.
Parsnip ..	New Zealand, U.S.A.	58	25	58	..	58	2	..	2	26 lb.
Parsley ..	Holland, Denmark	74	†40	66	..	58	2	..	2	6 lb.
Peas	New Zealand	99	75	95	66	66	189	1	190	190 bags
Prairie Grass ..	New Zealand	98	50	98	..	98	1	..	1	5 bags
Pumpkin ..	France	86	65	86	..	86	1	..	1	14 lb.
Radish	England, Holland, New Zealand, France, U.S.A. ..	98	65	87	44	44	24	1	25	213 lb.
Rape	England, New Zealand	96	70	89	..	75	23	..	23	59 cwt
Rye Grass ..	New Zealand	93	60	87	..	82	46	..	46	117 bags
Sudan Grass ..	Argentine..	90	70	90	..	90	1	..	1	550 bags
Sweet Corn ..	New Zealand	92	75	84	36	36	2	1	3	26 lb.
Swede	Holland, Norway, New Zealand, England, France, Denmark, Japan	98	65	88	53	53	33	2	35	20 cwt.
Tomato ..	U.S.A., New Zealand, France	98	65	89	..	71	39	..	39	269 lb.
Turnip	England, France, Holland, New Zealand, Germany..	98	65	90	..	74	18	..	18	144 lb.
	Total Number of Samples						840	10	850	

Parcels containing seeds received from Parcel Post for examination, 224.

* Clusters. † Proposed standards of germination.

On reference to the above table, it will be seen that the imported seeds generally are of "high germination" quality. Nevertheless the necessity of a check being maintained on all seeds entering Australia is emphasised by the fact that it was found necessary to stop the entry of the following seeds for the reasons set out:—

Kind of Seed.	Quantity.	Reasons for Action.	Action Taken.	Country Received From.
Beans—				
Canadian Wonder ..	1 bag ..	Faulty germination	Detained ..	Norfolk Island
Mauritius	82 bags ..	Faulty germination	Detained ..	Papua
Cucumber	14 lb. ..	Faulty germination	Detained ..	England
Mangel	14 lb. ..	Faulty germination	Detained ..	Denmark
Peas	1 bag ..	Faulty germination	Detained ..	New Zealand
Radish	14 lb. ..	Faulty germination	Burnt	France
Sudan Grass	550 bags ..	Prohibited weed seeds	Cleaned ..	Argentine
Sudan Grass	*11 bags ..	Datura cleanings	Burnt	Argentine
Sudan Grass	*16 bags ..	Cleanings	Burnt	Argentine
Swede Turnip ..	20 lb. ..	Faulty germination	Detained ..	Japan
Sweet Corn	10 lb. ..	Faulty germination	Detained ..	New Zealand

* The 11 bags of "Datura" cleanings, and 16 bags of other cleanings, were removed from the original consignment of 550 bags of Sudan grass seed.

CANADIAN WONDER BEANS (Commerce Act).

Last year 30 out of 159 bags (18·9 per cent.) had to be refused entry owing to faulty germination. This year only one out of 72 bags (1·4 per cent.) was refused admittance; this is a very considerable improvement. Nevertheless, the practice of examining every bag in every consignment submitted is being continued.

SUDAN GRASS SEED (Commerce Act).

The consignment of Sudan grass seed shown in the preceding table as being imported from the Argentine was found upon examination to contain the prohibited seeds of *Datura ferox*; this seed being larger than Sudan seed it was possible to have same removed by cleaning machinery before admission was permitted.

Importers of seeds from overseas should take the precaution to stipulate in their contracts covering the purchase, the necessity of seeds being in accordance with the standards prescribed by the Quarantine and Commerce Acts with respect to the kind of seed requiring to be admitted into Australia.

FERTILIZERS ACTS, 1935-1936.

The following table sets out particulars relative to the operation of the Act for the year ending June, 1936:—

Licenses—	
Issued	162
Refused	—
Registrations—	
Effected—General	166
Effected—Special Mixtures	24
Samples received from—	
Dealers	68
Buyers	5
Inspectors	79

The year's operations as enumerated above when compared with the table published last year show an increase of 24 licenses issued; this is due to the tightening up of the application of the Act.

The number of fertilizers registered shows a drop of 154; this is due to the elimination of amended registrations and also to the fact that the primary dealers, who have been carrying a large variety of mixtures, are cutting same down to a number suitable for reasonable requirements.

The number of samples received from dealers has increased from 23 to 68—no doubt due to the dealers realising the necessity of ascertaining the quality of their mixtures in accordance with the requirements of the new Act.

Samples received from buyers numbered five, all of which on analysis were found to be well within the stated guarantees.

Samples taken by inspectors rose from 31 last year to 79 during the period under review.

NEW ACT AND REGULATIONS.

Since the 9th January, 1936, on which date the new Fertilizers Act and Regulations came into operation, the work under this Act has consisted mainly of adjusting matters to suit the new conditions, and the period under review can be looked upon as transitional only.

One outstanding feature has been that a certain large fertilizer company effected a complete change over, including the printing of new labels by 31st January.

The remainder of the primary dealers took longer, but at the present time all fertilizers on the market are labelled in accordance with the requirements of the new Act.

MAIN FEATURES OF NEW ACT.

The following are the main features of the new Act:—

Fertilizer Definition.—A fertilizer is now defined as "Any prepared or natural substance sold as a fertilizer or manure or for supplying nutriment and/or lime to the soil for the use of plants and/or remedying any soil deficiency, and any material prescribed as a fertilizer. The term does not include farmyard, sheep, poultry, or stable manure, humus, seaweed, town refuse, crude offal, nightsoil, or trade waste unless any such substance has been dried or otherwise treated to arrest or retard decomposition."

This definition has been devised over a series of years, and coupled with section 13 of the Act is calculated to prevent some of the malpractices of previous years.

Guano, Phosphate Rock, &c.—In the past it has been the desire of various people to place upon the Queensland market phosphatic rock containing a trace (at most 0·5 per cent.) of nitrogen as guano. Now, true guano should have a nitrogen content of at least 5 per cent.; therefore, the Act and Regulations now define and separately classify guano, phospho-guano, and phosphate rock.

Licensing, Registration, and Labelling.—The dealer's license fee is unaltered at £1 1s. per annum, and every fertilizer still has to be registered during January of each year; the number of forms relating to registration, however, has been reduced to one, thereby simplifying procedure, but the information to be forwarded is not essentially different to that previously required.

Provision has been made so that the percentage of nitrogen, phosphoric acid, potash, and/or any material or substance declared to be an active constituent shall be declared on the label. This provides for the future when substances such as sulphur, magnesium sulphate, or other chemicals to supply soil deficiencies may be mixed with or sold as fertilizers; in this respect the Act can be considered as very modern.

A new wet method for ascertaining the degree of fineness of organic material in mechanical mixtures is included, which aims at eliminating the retention upon the sieve of coarse particles of water soluble chemicals, which were previously included in "coarse" under the old method.

Also a maximum degree of coarseness is laid down eliminating the expressions "unspecified" and "unspecified lumps," previously permissible.

Lime for Agricultural Purposes.—Lime for agricultural purposes is very comprehensively dealt with on the basis that every container shall be labelled setting out the kind of lime; the percentage of calcium oxide (CaO) and the form in which it occurs; the neutralising value; the net weight; the percentage of fineness (except in the case of burnt caustic or quick lime); and the name and address of the manufacturer or dealer.

Steps have been taken to carry out a survey of all the lime being offered for sale; this has involved the carrying out of 35 analyses, free of charge, and the drafting of labels to assist the dealers to comply with the Act's requirements. This alone has been a heavy undertaking, due chiefly to the fact that primary dealers in lime find it difficult to grasp what is required by the Act. When registrations of lime for agricultural purposes are completed, a list will be published in the "Queensland Agricultural Journal."

At the time of writing there are still three primary dealers in lime for agricultural purposes who have not yet completed the requirements necessary to effect registration.

An entirely new feature is the expressing of the "neutralising value" on labels relating to limes for agricultural purposes; this is a comparative figure showing the capacity of any particular lime for neutralising acidity. The figure is ascertained by a simple method prescribed in the Fertilizer Regulations.

Typical neutralising values would be—burnt lime, 160; pulverised limestone, 95; earthy lime, 80.

The neutralising value enables different limes to be compared upon the basis of their ability to neutralise acids in the soil, which, after all, is the primary purpose for which lime is used.

FERTILIZERS USED IN QUEENSLAND.

A review of the fertilizers registered under the new Act reveals that the kinds of fertilizer sold in Queensland consist of the following and combinations of same:—

Fertilizer.	GUARANTEED TO CONTAIN		
	Nitrogen %	Phosphoric Acid. %	Potash. %
*Nitrate of soda	15·6	..	..
Nitrapo (potassium nitrate + sodium nitrate)	15	..	15
Sulphate of ammonia	20·6	..	..
Dried blood	11–13	..	..
Superphosphate	..	20·5 (Water sol.)	..
Bone dust	3–3·5	22–23·5	..
Meatworks fertilizer	3–6	14–23	..
*Basic phosphate	..	17 (cit. sol.)	..
*Nauru phosphate	..	37	..
Sulphate of potash	..	..	48
Muriate of potash	..	..	50

* Seldom used in mechanical mixtures.

From this it will be apparent that unless one uses "filler" no mixture should contain less fertilizing active constituents (i.e., nitrogen and/or phosphoric acid and/or potash) than the lowest ingredient (i.e., 11 per cent. nitrogen in dried blood); in actual fact the lowest mixture offered for sale in this State contains 14 per cent. total nitrogen and/or phosphoric acid and/or potash; the highest grade mixture registered for the current year contains 36 per cent. total nitrogen and/or phosphoric acid and/or potash.

In this State high-grade mechanical mixtures are the rule, the total nitrogen, phosphoric acid, and potash guaranteed to be present in such for the current year (1936), based on 166 registrations, being as follows:—

Mechanical Mixtures.		Total Nitrogen Phosphoric Acid and Potash.
1.56%	under	19%
44.52%	between	19-24%
43.78%	between	25-28%
9.36%	between	29-34%
0.78%	over	34%

Superphosphate in Queensland.—The totals in the above (nitrogen, phosphoric acid, and potash) do not include the citrate soluble and citrate insoluble phosphoric acid in superphosphate.

The objective in Queensland is at all times to reduce all expressions of analyses to the lowest active constituents in order to prevent the exploitation of purchasers by the use of expressions that indicate a high percentage of ingredients; the farmer desires to buy only nitrogen, phosphoric acid, and potash, and this only in the form most suited for the needs of his crop.

As an explanation, superphosphate contains—

20.5%	phosphoric acid water soluble.
0.5%	phosphoric acid citrate soluble.
1.0%	phosphoric acid citrate insoluble
22.0%	

The purchaser buys super for its water soluble phosphoric acid content and the use of the expression 22 per cent. super may be good sales talk, but the buyer should be educated to the fact that superphosphate in his mixtures is there to supply the water soluble phosphoric acid.

If a farmer wants citrate soluble or insoluble phosphoric acid he would buy a fertilizer other than superphosphate, such as bone, basic phosphate, or Nauru phosphate or mixtures containing same.

Invoice Warranty.—The invoice certificate required under the old Act has now been replaced my a warranty following on the lines of the Pest Destroyers Act; this "warranty" method works very satisfactorily.

A fertilizer invoice should now include the following particulars:—The name and address of the dealer; the name of the fertilizer or lime sold; the net weight of the fertilizer or lime sold; and a warranty in the following words:—

> "Notwithstanding any agreement to the contrary, this invoice shall be and be deemed to be a warranty by me, the dealer, that the fertilizer or fertilizers mentioned on this invoice contains or contain nitrogen, phosphoric acid, potash, lime, and/or other

prescribed active constituents and the degrees of fineness in the proportions per cent. and the neutralising value as respectively stated in the statutory declaration and label furnished to the Under Secretary, Department of Agriculture and Stock, as prescribed by *"The Fertilisers Act of 1935"* and as set out on the labels attached to each and every container of the respective quantity or quantities of fertilizer herein mentioned with respect to the fertilizer of the same name."

(Trading name.)

The warranty is required only for sales of a greater value than 10s.

Offences.—The Act is very definite with respect to offences coming under the heading of false labelling, false naming, false branding, &c., these matters being covered by no less than five sections—11 to 15.

Samples for Analysis.—The Regulations under the Act prescribe the method to be carried out by a buyer desiring to have a sample of fertilizer analysed.

It must be realised that an analysis carried out on any sample submitted to this Department is absolutely valueless unless such sample is representative of the bulk from which it is taken. For instance, a match-box full of fertilizer taken from an open bag cannot be considered as representative of, say, 2 tons (28 bags) of bulk to which the open bag belongs.

Samples must consist of an appreciable quantity of material made up of portions taken from a reasonable number of bags in proportion to the total number of bags in the particular lot of fertilizer concerned.

The method prescribed in the Regulations must be strictly adhered to.

Complaints.—When any primary producer has a complaint concerning any fertilizer or lime for agricultural purposes he should at once communicate with the Department of Agriculture and Stock, William street, Brisbane, when the matter will be investigated.

Analyses.—The provisions of the Act provide that all guarantees shall be minima, except in the case of magnesia present in lime when a maximum percentage shall be declared; no margin of error is allowed.

Sixty-three analyses have been carried out by the Agricultural Chemist on samples taken by inspectors; some of these analyses were guaranteed under the Act of 1914-1916 and some under the 1935 Act.

A survey of these analyses indicates that the materials generally are in accordance with the guarantees on the labels.

The various methods of analysis used by the Agricultural Chemist have been tabulated and distributed in Roneo form to those dealers interested, in order to assist them in maintaining their guarantees by being in a position to adopt the methods of analysis actually used in this Department.

Experiments.—In conjunction wtih the Agricultural Chemist experiments were carried out in order to determine the effect on the reversion of water sol P_2O_5, of the grinding or otherwise of mixtures of bonemeal and superphosphate.

Experiments relating to the lack of uniformity in bulk mixing, sampling, &c., and other possible errors with respect to the analysis of fertilizer mixtures were started with the co-operation of a large fertilizer firm and of the Agricultural Chemist.

VETERINARY MEDICINES ACT, 1935-1936.

The following table sets out particulars relative to the operation of the Act for the year ending June, 1936:—

Licenses—	
Issued	393
Refused	1
Registrations—	
Effected	540
Pending	68
Samples received from—	
Dealers	252
Buyers	2
Board Meetings	12

The year's operations as enumerated above when compared with the table published last year show a decrease of 10 licenses issued and an increase by 37 registrations effected.

ANNUAL REGISTRATION.

From time to time suggestions have been made that the submission of statutory declarations, labels, and samples for purposes of registration of veterinary medicines could well be made every three years provided that the fees were paid for annual renewal. This is ideal and in accord with the practice in New Zealand.

Unfortunately, however, it has been found that quite a considerable number of formulæ are continually being altered, in many cases requiring reconsideration of claims and amendment of labels inside the term of one year. Until greater stability is indicated it is not considered wise to recommend any alteration to the present system of yearly registration.

DRUGGING OF RACEHORSES.

During the year under review the Veterinary Medicines Board was called upon to report upon "The Allegations of Drugging Racehorses"; the findings were duly forwarded to the Minister.

CONTAGIOUS ABORTION.

Even though Regulation 13 prohibits the sale of abortion cures, it is found that after registration has been refused, farmers still ask for and consequently create a demand for these materials; this demand is being met from sources outside this State, and the good effects of the Queensland Act are reduced thereby.

UNIFORM ACTS.

The necessity for uniform Acts, such as the Veterinary Medicines Act, throughout Australia, is brought forcibly before our notice in cases such as that above-quoted.

LABELLING.

A distinct improvement in labelling veterinary medicines is noticeable.

NICOTINE SULPHATE—COPPER SULPHATE DRENCHES.

Nicotine sulphate drenches for treatment of worms in sheep have received considerable attention by the Board; it has been resolved that all nicotine sulphate used shall conform to the following standard:—

> "Nicotine sulphate shall contain not less than 40 per cent. of nicotine ($C_{10}H_{14}N_2$) by weight, free and/or combined and shall be free from coal tar bases."

and when nicotine sulphate–copper sulphate drenches for worms in sheep are advocated, the directions for use shall include the following:—

(*b*) FOR TREATMENT OF WORMS IN SHEEP.

....% Nicotine by weight.

For the treatment of worms in sheep this nicotine sulphate should be mixed with the following ingredients in the proportions shown, in order to obtain the doses as set out—

Nicotine sulphate	(*) fl. oz.
Copper sulphate (Bluestone)	1 lb.
Water	5 gal.

Doses—

Sheep 18 months and over	2 fl. oz.
Sheep 12-18 months	1½ fl. oz.
Sheep 4-12 months	1 fl. oz.
Sheep under 4 months	½ fl. oz.

The use of nicotine sulphate is not recommended for the treatment of weak or emaciated sheep or of very young lambs.

(*) Here insert the number of fluid ounces of the nicotine sulphate in question that would be equivalent to 16 fluid oz. of nicotine sulphate containing 40 per cent. nicotine.

REGISTERED VETERINARY MEDICINES.

Lists of veterinary medicines submitted to the Board and subsequently registered appeared in the March and April issues of the "Queensland Agricultural Journal"; reprints of the lists can be obtained upon application. This method of publication will be continued in the future.

UNREGISTERED VETERINARY MEDICINES.

Action had to be taken to prevent the sale of a quantity of unregistered preparations. The majority of the preparations concerned were returned to the suppliers, but in some cases where they consisted of old stock, they were voluntarily destroyed by the dealers.

PEST DESTROYERS ACT, 1935-1936.

The following table sets out particulars relative to the operations of the Act for the year ending June, 1936:—

Registrations—	
Effected (General)	269
Special Mixtures	13
Pending	54
Samples received from—	
Dealers	281
Buyers	4
Inspectors	36

The year's operations as enumerated above, when compared with the table published last year, show a decrease of 15 registrations effected.

The four samples received from buyers were, upon analysis, found to comply with the standards prescribed.

The pest destroyer samples, received under section 3, and analysed for purposes of the Act, were found also to comply with the requirements of the Regulations.

PHENOLIC SHEEP DIPS.

During the year in review several materials claiming to be phenolic sheep dips were refused registration—except after alteration to the names and labels concerned—as the guarantees were under the 16 per cent. minimum prescribed by the Regulations for this class of material.

ARSENATES OF LEAD.

Owing to a number of inquiries relating to the quality of arsenates of lead on the Queensland market, a sample of each registered material was analysed and the results obtained were satisfactory.

DUSTING MIXTURES.

It has been stated that the method of declaring the active constituents on the labels of dusting mixtures does not show the percentages of the actual components of the dusts. This is true, but the same may be said about fertilizer mixtures which are labelled with the percentages of nitrogen, phosphoric acid, and potash and not with the percentages of the ingredients used.

It is a matter of education, actually; farmers should compare dusting mixtures on an active constituent basis—percentage copper (Cu), percentage sulphur (S), percentage arsenic pentoxide (As_2O_5), &c., in the respective forms in which they occur—in the same way as they compare fertilizers.

However, if the manufacturer sets out on the label the percentages of ingredients used, as well as the percentages of active constituents, he should be careful to keep the two "sets of information" well separated, so as not to cause confusion.

ANALYSES GENERALLY.

During the period under review the Agricultural Chemist carried out 102 chemical analyses, which number includes 43 on lime sulphur.

Lime Sulphur.—Roneo copies of methods of analysis for this material have been circulated to those concerned; copies are available on application to this Branch.

EXPERIMENTS BEING CONDUCTED.

A comprehensive series of storage experiments were started with the co-operation of one of the large lime sulphur manufacturers, in order to ascertain the reduction, if any, in the polysulphide content of lime sulphur when the drums containing same are completely full, or only one-third full, and when such drums are subjected to the weather (full sunlight), or stored under shelter from the elements (shade); samples are drawn periodically for immediate analysis. The results of this work will not be available for some considerable time.

STOCK FOODS ACTS, 1935-1936.

The following table sets out particulars relative to the operations of the Act for the year ending June, 1936:—

Registrations—	
Effected	197
Pending	25
Samples received from—	
Dealers	210
Buyers	9
Inspectors	16
Government Departments	9

The year's operations as enumerated above when compared with the table published last year show an increase of 15 registrations effected. This is accounted for by the tendency for more dealers to mix and sell poultry preparations, made up to their own formulæ.

AMENDING ACT.

The Stock Foods Amending Act came into operation on 7th November, 1935; the principal provisions included therein are as follows.

INVOICE WARRANTY.

In place of the statement of ingredients previously required—which proved very cumbersome when a dealer had an ever-increasing number of mixtures, the compositions of which had to be adjusted to conditions prevailing at the times of mixing—the warranty included in the undermentioned was substituted.

Every seller of any stock food being mixed, concentrated, or prepared stock food or prescribed by-products shall, on or before the delivery of such stock food or any of it, or any part thereof, sign and give to the buyer an invoice which shall set forth the following particulars:—

(*a*) The name and address of the seller;

(*b*) The name of each stock food;

(*c*) The net weight of each stock food included on such invoice; and

(*d*) A warranty to the following effect:—"Notwithstanding any agreement to the contrary, this invoice shall be deemed to be a warranty by me, the seller, that the constituents, materials, or ingredients of the stock food sold, and the percentage in which each constituent, material, or ingredient is contained therein, accurately correspond with the constituents, materials, or ingredients and percentages stated in the statutory declaration and label furnished to the Under Secretary, Department of Agriculture and Stock, Brisbane, and as set out on the labels attached to each and every container of stock foods mentioned in this invoice."

Provided that the retail seller of any mixed concentrated or prepared stock food or prescribed by-products required to be labelled need not give to the buyer any invoice as previously mentioned unless the buyer demands such invoice.

HAY AND CHAFF.

All hay and chaff sold or offered for sale shall be labelled or stencilled on the bag or batten in one of the following manners:—

Marking.

1. With the grower's full name and address stencilled with letters of not less than one inch in height; or

2. With the grower's full name and address printed on a label and attached thereto; or

3. With the grower's full name and address embossed on a metal tag in letters not less than ⅛ inch in height; or

4. With the grower's horse and cattle brand registered under "*The Queensland Brands Act, 1915-1932,*" or

5. With approved letters which will be alloted on receipt of an application in writing to the Department of Agriculture and Stock, Brisbane. These letters shall not be less than one inch in height and shall be stencilled on each package.

The limited inspections that have been made on baled hay being offered for sale, have revealed a decided improvement in the quality of battens being used; unfortunately it has not been possible as yet to carry out a systematic supervision of this material.

The following table sets out the samples submitted for examination by the Chief Quarantine Officer Plants representing seeds imported from overseas for feeding purposes only, during the year ending June, 1936:—

Kind of Seed.	Imported From.	No. of Samples.	No. of Bags Imported.
Hemp	Japan, Manchuria	7	410
Maw	Holland	2	19
French Millet	Japan	6	280
Rape	Japan	4	94

The above consignments were examined and found to comply with the requirements of the Stock Foods Acts.

Stock Licks.

The original 1919 Act provided for the labelling of mixed concentrated or prepared stock foods with the percentage of protein, fat, and/or fibre present.

Owing to the advent of stock licks upon the market, an amendment was found necessary in 1928 to provide for the labelling of such materials with the maximum percentage of salt, and the respective minimum percentages of phosphoric acid, lime, magnesia, iron, sulphur, and/or iodine present.

This system, it will be seen, divides the licks from the foods. The present trend is to put on the market mixtures containing a large proportion of feed with the addition of small quantities of "lick materials." Therefore, steps will be taken in the near future to ensure that the buyer of these combinations shall be informed, by the label, of the proportions of the various ingredients both from a food and a lick point of view; that is to say, a combination label somewhat as follows, will be required in such cases:—

(Here insert name of Stock Lick or Mineral Food.)
Manufactured from

(Here insert the names of each of the materials or ingredients.)

........lb. net weight.
....% Max. Salt................................
....% Min. Phosphoric Acid (P_2O_5) from........
....% Min. Phosphoric Acid (P_2O_5) from........
....% Min. Phosphoric Acid (P_2O_5) from........
....% Min. Lime (CaO) from..................
....% Min. Lime (CaO) from..................
....% Min. Lime (CaO) from..................
....% Min. Magnesia (MgO) as................
....% Min. Iron (Fe) as.....................
....% Min. Sulphur (S) as...................
....% Min. Sulphur (S) as...................
....% Max. Molasses..........................
....% Max. Meal made from...................
....% Max. Meal, a by-product of..............
....% Min. Crude Protein
....% Min. Crude Fat
....% Max. Crude Fibre
To each ton of this material........ounces of Potassium Iodide have been added.

(Here insert name and address of Queensland wholesale seller.)

The above label provides for P_2O_5 and CaO present in several different forms; in such cases the individual percentages of P_2O_5 and CaO derived from each form must be declared.

In the case of lime that is in combination with the phosphoric acid (in bone or other phosphates), this should be shown as well as any lime added as calcium carbonate or other "non-phosphate" ingredient.

F. B. COLEMAN, Officer in Charge.

REPORT OF THE CHIEF INSPECTOR OF STOCK.

The following preliminary figures have been received from the Government Statistician showing the number of live stock in Queensland on the 1st January, 1936:—

Year.	Horses.	Cattle.	Sheep.
1st January, 1935	448,604	6,052,641	20,574,182
1st January, 1936	430,399	5,974,299	17,806,188

These preliminary totals show a general decrease, due mainly to drought conditions which prevailed during the previous year.

This year the rainfall has been scattered and variable, although good rains were experienced in most of the pastoral districts. The Government is at present carrying out a comprehensive scheme for providing water on our main western stock routes. This, when completed, will not only be of benefit to the ordinary travelling stock, but, in drought periods, will be of great advantage in the travelling of starving stock to agistment country.

The demand for stud stock is increasing year by year, and numbers are being introduced from southern States and from overseas, importers being financially assisted in connection with the introduction of stock from the British Isles. Stockowners are particularly desirous of improving the quality of their beef stock, with the object of producing meat suitable for the chilled beef export trade.

The Department has also initiated what is known as the "Beef Cattle Improvement Subsidy Scheme." In this case, the purchaser of an approved bull of approved beef breeds is granted an amount equal to the actual railway freight paid for the transport of the bulls from the railway station most convenient to the place of purchase within Queensland to the nearest convenient railway station to the holding on which the bull is to be used, provided that such subsidy shall not exceed £10. The conditions of the subsidy provide that the bull must be duly registered in the herd book of the society concerned; that it must have been subjected to and passed an approved tuberculin test within a period of not more than two months prior to the application for subsidy; that, if railed from country free from cattle tick infestation to infested country, the bull must be inoculated against tick fever prior to despatch; and that the bull must be at least twelve months old.

There is a good demand for well-bred horses of any class. Regular monthly sales have been held in Toowoomba throughout the year. Approximately 600 to 1,000 horses have been offered at each sale, when good young draughts commanded high prices. Interstate buyers operated freely, but confined their purchases chiefly to draughts.

BUFFALO FLY.

A recent survey of cattle on holdings in the Gulf country has been made, and it was found that the fly has not spread to any appreciable extent during the past year. Three holdings only were found fly-infested, infestation on two of these being very light. The spray and medicaments are being maintained at Kajabbi so that, should fly-infested stock be discovered at that centre, spraying could be carried out immediately prior to trucking.

PIGS.

There has been a marked increase in the number of pigs slaughtered at the bacon factories during the year. The number killed totalled 383,207, being an increase of 59,100 over 1934-35, and 132,519 more than 1933-34.

VETERINARY MEDICINES BOARD.

The Veterinary Medicines Board has met at various times during the year. The principal work involved in this connection, apart from the consideration of over 600 materials submitted for registration, was in connection with the setting of standards for nicotine sulphate-copper sulphate drenches for sheep, and the consideration of "allegations as to the drugging of racehorses."

TICK CLEANSING AREAS.

Area.	Holdings Inspected.	Total Stock Inspected.	Holdings Infested.	Stock Treated.
Helidon–Crow's Nest Area	2,761	90,763	490	40,177
South Burnett Area	1,345	68,352	109	30,648

QUARANTINE ACT.

During the year the following live stock were imported from overseas:—2 bulls, 1 heifer, 3 donkeys, 9 dogs, 5 pigs, 4 monkeys, 33 fowls, 9,023 aviary birds, 2,467 goldfish and other small fish.

Articles imported after complying with the Quarantine Regulations:—39,363 lb. sheep bungs, 67,699 lb. hog casings, 1,106 lb. blood albumen, 17 hams, 38 frozen game birds, 13 cases meat samples, 14 tins meat samples, 1 bale wool, 55 used saddles, 1 set harness, 1 bridle, 6 articles horse effects, 1,200 goat skins, 26 skins (trophies), 16 miscellaneous sporting trophies, 34 bird cages, 6 animal cages, 1 kennel.

PROSECUTIONS.

Act.	Number of Prosecutions.	Number of Convictions.
Diseases in Stock Acts	36	36
Slaughtering Act	25	25
Brands Acts	2	2

TUBERCULIN TEST.

Three thousand eight hundred and eighty animals were submitted to the test, as compared with 2071 animals for the previous year. There were 246 reactors.

An analysis of the testing shows that, of the number tested, 528 were cattle selected and tested for the purpose of eliminating tuberculosis from swine, and 106 of these animals reacted to the test; 2,681 were tested under the T.B. Free Herd Scheme, and 79 reacted to the test.

DIPPING FLUIDS.

The number of dipping fluids analysed during the year was 334.

HORSES EXPORTED OVERSEAS.

Horses exported overseas numbered 2,238.

VISCERA EXAMINED DURING THE YEAR.

One hundred and seventy four samples of viscera and ingesta were examined by the Agricultural Chemist. Of these, 49 were found to contain arsenic, 1 contained cyanide, and 1 lead arsenate.

PLEURO-PNEUMONIA CONTAGIOSA.

Year ending 30th June, 1936.

The total number of outbreaks was 35, as compared with 50 the previous year.

District.	1935.						1936.						Total.
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	
Barcaldine	..	..	..	..	..	..	..	..	..	..	..	..	..
Bowen	2	..	..	..	..	..	..	..	..	..	..	2	4
Brisbane	..	..	..	..	..	..	..	1	2	3	1	1	8
Cairns	1	1	..	..	..	..	..	..	..	..	..	1	3
Charleville	..	..	..	..	..	..	..	..	..	..	..	..	..
Clermont	..	..	..	..	3	..	..	..	..	..	..	..	3
Cloncurry	..	..	..	..	..	..	..	..	..	..	..	..	..
Emerald	..	..	..	..	..	..	..	..	..	..	..	1	1
Gladstone	1	..	..	..	..	..	..	..	..	..	..	..	1
Hughenden	..	..	..	..	..	..	..	..	..	..	..	..	..
Longreach	..	..	..	..	..	..	..	..	..	..	..	..	..
Maryborough	..	..	..	..	..	..	..	1	..	..	..	..	1
Normanton	..	..	..	..	1	..	..	..	..	..	..	..	1
Rockhampton	..	..	2	..	..	..	1	..	..	..	1	..	4
Roma	..	..	..	..	1	..	..	..	..	..	..	..	1
South Burnett	..	..	..	..	..	..	..	1	1	..	2	..	4
Toowoomba	..	..	..	..	..	..	..	..	..	1	..	..	1
Townsville	1	..	1	..	..	1	..	..	..	..	..	..	3
Warwick	..	..	..	..	..	..	..	..	..	..	..	..	..
Winton	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	5	1	3	..	5	1	1	3	3	4	4	5	35

TABLE SHOWING STOCK MOVEMENTS IN THE SEVERAL STOCK DISTRICTS FOR THE YEAR ENDED 30TH JUNE, 1936.

District.	Entered District.			Removed from District.			Movements in District.			Stock Dipped.		
	Horses.	Cattle	Sheep	Horses.	Cattle.	Sheep.	Horses.	Cattle.	Sheep.	Horses.	Cattle.	Sheep.
Barcaldine ..	2,523	10,212	226,123	5,327	10,993	430,427	8,188	8,012	1,203,616	..	..	..
Bowen	641	14,246	3,714	1,220	16,180	12,548	1,201	21,578	..	..	..	..
Brisbane	5,350	220,971	263,950	4,101	50,085	42,029	7,052	371,161	170,248	2,164	1,476	2,031
Cairns	1,252	7,335	12,970	4,573	60,276	60	10,454	76,245	1,234	257	18,462	..
Charleville ..	4,797	52,293	147,839	11,015	77,034	646,157	13,683	86,024	851,508	1	300	..
Clermont	158	1,347	22,425	1,333	25,387	90,382	5,024	30,541	151,330	325	314	..
Cloncurry	2,742	18,473	83,092	7,978	110,721	174,831	13,928	85,620	573,065	1,734	78,254	..
Emerald	2,138	10,051	58,823	6,325	47,515	344,235	8,340	49,313	231,611	1,352	13,461	15,000
Gladstone ..	1,081	20,047	1,730	1,372	18,566	..	1,750	34,292	8	953	1,929	..
Helidon	1,734	11,289	3,353	2,065	37,508	972	1,341	47,842	707	1,406	45,565	..
Hughenden ..	2,156	7,708	114,566	4,024	11,746	182,997	8,548	10,578	474,082	1,115	3,867	6,331
Longreach	4,191	16,270	324,626	4,312	16,123	199,404	7,455	5,823	655,157	..	..	..
Maryborough ..	1,583	21,547	21,278	4,601	97,881	1,024	7,403	208,225	659	58	[illegible]	..
Normanton ..	223	3,700	..	3,390	57,996	35,300	4,918	39,747	21,900	291	[illegible]	..
Rockhampton ..	1,637	35,448	46,609	4,637	56,677	82,108	19,922	312,608	48,819	420	[illegible]	..
Roma .. .	1,900	17,081	114,712	8,229	128,339	597,441	14,882	176,852	1,209,309	713	[illegible]	..
South Burnett ..	2,437	37,515	14,775	5,405	146,818	13,862	10,571	213,449	1,399	1,450	[illegible]	..
Toowoomba ..	5,490	75,654	248,055	15,401	239,255	675,058	40,588	844,579	2,082,108	665	[illegible]	..
Townsville ..	5,063	70,846	22,437	7,707	46,955	97,709	8,263	35,088	22,666	26	839	..
Warwick	7,570	46,592	424,197	7,747	94,810	782,045	11,069	228,467	1,268,416	444	21,697	1,400
Winton	4,594	44,864	172,306	3,442	23,894	70,099	3,071	22,888	229,702	..	..	..

STOCK SOLD AT THE CANNON HILL SALEYARDS.

For the year ended 30th June, 1936, compared with number sold for the year ended 30th June, 1935:—

	1934-35	1935-36
Bullocks ..	89,496	91,081
Cows ..	41,182	44,560
Calves ..	33,977	46,518
Sheep ..	561,423	406,790
Lambs ..	59,458	48,135
Swine ..	35,314	42,292

Total stock sold year ended 30th June, 1935	820,850
Total stock sold year ended 30th June, 1936	679,376
Decrease in sale all stock sold year ended 30th June, 1936 ..	141,474

Prices.

	1934-35 £	s.	d.	1935-36 £	s.	d.
Cattle—						
Average value per cental chilled bullocks	—			1	7	3·35
Average value per cental bullocks	1	0	11	1	3	9·06
Average value per cental cows and heifers ..	0	18	1	1	1	6·52
Sheep—						
Average value per lb. wethers	0	0	3·06	0	0	3·88
Average value per lb. ewes	0	0	2·69	0	0	3·47
Lambs—						
Average value per lb. ..	0	0	5·65	0	0	6·21
Swine—						
Average value per lb. ..	0	0	5·26	0	0	5·23
Calves—						
Average value per lb. ..	0	0	2·45	0	0	2·86

"THE SLAUGHTERING ACT OF 1898."

Departmental officers report that the observance of the provisions of the Act and regulations so far as butcher shops are concerned, is, on the whole, satisfactory. Replacements of obsolete premises by modern shops, with improved fronts and facilities for more attractive meat displays, are still being made.

Delivery carts are being maintained at that standard of repair and cleanliness necessary for the hygienic delivery of meat.

Slaughter-houses and slaughter-house piggeries are generally satisfactory. Some exceptions still necessitate a constant supervision, and improvements are needed in some districts. Continued wet weather in some of the northern centres has hindered this work to a certain extent.

Forty-two new butcher shops have been built in various towns and country centres.

Seventeen new slaughter-houses have also been constructed.

BRISBANE ABATTOIR AREA.

During the year all butcher shops, delivery carts, and cash cutting carts have been subjected to constant inspections, the number of such inspections totalling 9,671.

Since the advent of the Meat Industry Act co-operation between the Department and the Queensland Meat Industry Board has resulted in a genral raising of the standard of butcher shops and the general condition of meat distribution within the metropolitan area.

Butcher shops are now in a fairly satisfactory state, although the progress that might have been expected has been somewhat hampered by the conditions of the retail trade, butchers being unable to undertake the financial outlay necessary to bringing their shops to an ideal standard.

The method of delivering meat by means of cash carts is still in operation, although it has many disadvantages from a hygienic point of view. Nevertheless, inspectors report that the general standard of the cash carts has reached a high level, none of the old unsatisfactory vehicles of a few years ago being in use to-day.

ILLEGAL SLAUGHTER.

The practice of illegal slaughter that was very prevalent shortly after the inception of the abattoir has now been practically eliminated. During the past year only one case for this offence was brought before the courts.

METROPOLITAN SHOPS.

The number of shops and vehicles registered by the Queensland Meat Industry Board to the 30th June, 1936, as compared with previous years' figures, is as follows: —

—	1933-34.	1934-35.	1935-36.
Shops	291	322	278
Delivery Vehicles	402	389	412
Cash Cutting Carts ..	95	112	88

BACON FACTORIES.

Again there has been a very marked increase in the number of pigs killed at bacon factories.

Number Slaughtered.	1933-34.	1934-35.	1935-36.
Pigs	250,688	324,107	383,207

Of the 1935-36 total, 31,263 pigs were slaughtered for export purposes.

Condemnations from the above are as follows:—

Tuberculosis.	1933-34.	1934-35.	1935-36.
Carcasses	2,720	3,354	3,791
Heads	14,702	24,869	29,580

In addition, the following cattle were slaughtered at the several bacon factories:—

Bullocks	3,283
Cows	15,074
Calves	5,807

This represents an increase of 4,304 cattle and 1,675 calves over last year's killings.

STOCK SLAUGHTERED AND CONDEMNED AT THE BRISBANE ABATTOIR.

The following statement shows stock slaughtered and condemned at the Brisbane Abattoir for home markets, stock killed for export purposes not being included. A further decrease will be noted in the number of sheep and lambs killed, also a slight decrease in the cattle killings. Pigs and calves have increased.

Description of Stock.	1933-34.	1934-35.	1935-36.
Bullocks	47,406	53,617	46,034
Cows	46,313	39,220	39,348
Calves	48,012	52,187	68,435
Sheep and Lambs ..	441,792	406,499	328,892
Pigs	35,364	30,305	32,312

Condemnations for the period under review were as follows:—

Cause.	Bullocks.	Cows.	Calves.	Sheep.	Swine.
Tuberculosis	1,021	1,406	9	..	1,166
Emaciation	394	1,557	4,203	821	19
Bruising	78	140	7	..	12
Gangrene	106	98	70	1	23
Abscess	19	26	189	395	41
Jaundice	2	2	..	..	1
Fever	12	19	1	336	22
Redwater	12	3	..	..	..
Plant poisoning	15	4	..	..	..
Peritonitis	2	..	..	..	13
Pleuro-pneumonia	2	1	..	..	..
Cancer	..	2	..	..	..
Septicæmia	..	1	..	..	..
Actinomycosis	..	1	..	..	..
Anæmia	..	..	..	..	1
Tumour	..	..	1	..	..
Pyæmia	..	..	..	..	1
Uræmia	..	..	..	..	2
Navel Ill	..	..	10	..	..
Pneumonia	..	..	1	..	5
Septic Pneumonia	..	3	..	..	..
Septic Metritis	..	3	..	..	..
Inflamation	..	..	..	..	1
Worms	..	..	..	..	1

The return of stock slaughtered under the supervision of Police Acting Inspectors is as follows:—

Bullocks	32,590
Cows	42,780
Calves	3,586
Sheep	56,699
Swine	13,990

The following table shows stock slaughtered and condemned in the course of the period under review, and is compiled from returns furnished by permanent officers of the Department performing slaughtering duties throughout the State, with headquarters at the following centres:—Atherton, Ayr, Beaudesert, Biggenden, Boonah, Boondooma, Bowen, Bundaberg, Cairns, Charleville, Charters Towers, Chinchilla, Clermont, Clifton, Cloncurry, Coolangatta, Cooroy, Crow's Nest, Dalby, Emerald, Gayndah, Gladstone, Goombungee, Goondiwindi, Grantham, Gympie, Helidon, Hughenden, Ingham, Innisfail, Ipswich, Jandowae, Julia Creek, Killarney, Kingaroy, Laidley, Longreach, Mackay, Malanda, Mareeba, Maryborough, Miles, Millmerran, Monto, Mt. Isa, Mundubbera, Murgon, Nambour, Nanango, Normanton, Oakey, Pittsworth, Proston, Ravensbourne, Roma, Rockhampton, Rosewood, Toogoolawah, Toowoomba, Townsville, Warwick, Wandoan, Wondai, Wowan, and Yarraman.

The return of swine slaughtered is exclusive of those treated at bacon factories, a list of which is shown separately.

Description of Stock.	Number Slaughtered.	Carcasses and Portions Condemned.	Disease.	Percentage.
Bullocks	58,563	64 carcasses	Tuberculosis	·109
		40 forequarters	Tuberculosis	·06
		1 hindquarter	Tuberculosis	·001
		33 heads	Tuberculosis	·05
		1 carcass	Bruised	·001
		13 forequarters	Bruised	·02
		2 carcasses	Emaciation	·003
		35 heads	Actinomycosis	·05
		1 carcass	Pleuro Pneumonia	·001
		1 carcass	Fever	·001
		1 carcass	Cancer	·001
Cows	97,017	193 carcasses	Tuberculosis	·19
		52 forequarters	Tuberculosis	·05
		24 hindquarters	Tuberculosis	·02
		34 heads	Tuberculosis	·03
		11 forequarters	Bruised	·01
		16 carcasses	Emaciation	·01
		5 carcasses	Redwater	·005
		4 heads	Actinomycosis	·004
		1 carcass	Fever	·001
		1 carcass	Metritis	·001
		1 carcass	Peritonitis	·001
Calves	15,447	108 carcasses	Under Weight	·69
Sheep	217,275	9 carcasses	Emaciation	·004
		7 carcasses	Bruised	·003
Swine	48,616	227 carcasses	Tuberculosis	·46
		1,183 heads	Tuberculosis	2·43
		2 carcasses	Abscesses	·004
		3 heads	Abscesses	·006
		4 carcasses	Pneumonia	·008
		1 carcass	Septicæmia	·002
		4 carcasses	Emaciation	·008
		1 carcass	Pyæmia	·002
		1 carcass	Gangrene	·002

The following is a summary of the total number of all stock killed for local consumption throughout the State for the period under review, through the various sources of inspection:—

Inspection.	Bullocks.	Cows.	Calves.	Sheep.	Swine.
Bacon Factories	3,283	15,074	5,807	..	351,944
Brisbane Abattoir	46,034	39,348	68,435	328,892	32,312
Departmental Inspectors	58,563	97,017	15,447	217,275	48,616
Police—Acting Inspectors	32,590	42,780	3,586	56,699	13,990
Totals	140,470	194,229	93,275	602,866	446,862

APPENDIX A.

REPORT OF SENIOR INSTRUCTOR IN SHEEP AND WOOL.

The Senior Instructor in Sheep and Wool, Mr. J. Carew, reports:—

Seasonal Conditions.—From the grazier's point of view, conditions may be regarded, generally, as favourable. The year was remarkable for a series of beneficial rains which occurred in the northern, central, and south-western districts. Heavy winter rains occurred chiefly in areas where the sheep were drought-weakened and many newly shorn; losses were consequently heavy. The whole of the western country which, for many years, had been subject to restricted rainfalls, benefited last year with good and regular falls, resulting in improved pastures and water supplies. The south-eastern portions of the Maranoa and the Darling Downs, which had been more favoured in recent years, were not so fortunate, although the recent winter rains have eased the situation in those parts considerably.

The Blowfly Pest.—As a result of frequent falls of rain in the western areas during the summer and autumn, blowflies increased as the season advanced, and heavy mortality occurred in those areas. Many remedies have been recommended and tried, but without lasting effect. As a prevention, stock owners who jetted with suitable jetting mixtures secured the greatest degree of protection. This problem has provided one of the most important fields for investigation, but, while investigation is proceeding, the known methods that give some measure of control should be applied more fully in a practical way.

Brisbane Wool Sales.—During the season 399,818 bales were catalogued at the eight sales held. Very little wool was carried over from the previous season, and wool was received in store for the last sale up to late in June on account of a short supply.

Details of the season's clip:—

Sale No.	Bales Catalogued.	Bales Sold.	Greasy Per Bale.	Greasy Per lb.	Greasy and Scoured Per Bale.	Average Per lb.
			£ s. d.	d.	£ s. d.	d.
1	53,348	50,370	17 4 9	13·35	17 7 3	14·05
2	50,832	52,664	18 8 9	14·47	18 12 4	15·02
3	53,992	53,984	18 8 8	14·57	18 11 0	15·10
4	52,522	53,353	19 1 11	14·99	19 6 8	15·67
5	53,929	52,903	18 4 4	14·20	18 9 2	15·07
6	51,722	51,350	20 0 3	14·72	20 1 3	15·07
7	47,714	39,547	16 11 5	12·28	16 14 5	12·79
8	35,759	32,399	15 8 2	11·47	15 11 4	12·25
Total	399,818	386,570	18 2 8	13·93	18 5 3	14·54

It will be observed from these figures that the Nos. 4 and 6 sales were the best of the season, showing about £2 per bale better for greasy than for the first sale, and £4 better per bale than the price obtained at the closing sale. Notwithstanding the drop in prices, good clearances were effected and very little carry-over wool is on hand, and what is left is being cleared by private treaty. The prices during the whole of the selling season may be considered satisfactory from the seller's point of view, and under normal conditions advanced prices should be realised at later sales.

The total amount realised as a result of the wool sold at the Brisbane sales was £7,058,068. Besides this, there is the value of wool exported direct to England, and the value of wool on skins exported, which numbered 304,492 with a value of £68,150.

Sheep Markets.—The market for fat mutton and lamb has remained in the seller's favour throughout the year. This is, no doubt, due to the desire in the back country to make up numbers in both ewes for breeding and wethers for wool production, thus allowing fewer sheep to be listed for sale as fats. Store wethers may now be quoted at 12s. per head off shears, with young ewes higher.

Fat Lamb Raising.—The scheme to encourage this branch of the industry inaugurated a few years ago has been continued. Sheep of the British breeds were again purchased in the southern States and loaned to approved farmers.

Preference has been given to farmers who had cultivation, but consideration was also given to those fringing the fattening area where introduced grasses had been sown—chiefly for raising half-breds, of which the ewes may be retained as breeders of lambs of export type. Definite beneficial results have been achieved in the matter of developing lambs suitable for sale as suckers, and with the impetus given to this branch of the industry it is expected confidently that in the not distant future there shall be a marked improvement in the numbers and quality of lambs produced.

Although most of the rams introduced have been loaned to farmers on the Darling Downs, allotments have extended nearer the coast and to the Upper Burnett and the Dawson Valley. Sheep are being introduced into these areas and, in order to encourage fat lamb raising, the scheme is being extended to approved owners. It is expected confidently that these experiments will prove successful, in which case it will be a definite financial benefit, not only to the settlers concerned but to the districts generally.

The number of lambs sold under the departmental Fat Lamb Scheme this season has been affected seriously through the paucity of spring and summer rains over the Darling Downs, our chief fattening area. The average price received for the 1,520 lambs sold at Cannon Hill over the three months corresponding to the period when 2,100 were sold last season are as follows:—

Dorset Horn Crosses, 18s. 10d. per head.
Border Leicester Crosses, 18s. 9d. per head.
Southdown Crosses, 17s. 9d. per head.
Romney Marsh Crosses, 16s. 9d. per head.
Lincoln Crosses, 15s. 7d. per head.

Atherton Tableland Sheep Trials.—In the course of the year 300 ewes and ten English type rams were placed with ten farmers who are members of the Local Producers' Association, and selected by that body. Thirty ewes and one ram were placed with each farmer in order that an endeavour be made to test the suitability or otherwise of this country for sheep. Up to the present they have withstood fairly well the effects of 47.94 inches of rain, the local registration since the end of January. Rain fell on 117 days.

During the time under review officers of the Branch have visited holdings in many parts of the State for the purpose of general instruction in sheep and wool matters, as well as giving practical demonstrations. Culling the flock has been emphasised, along with the choice of better rams in an endeavour to improve the general standard of the sheep and fleece. Marked success has been achieved in this connection, and more appreciation is shown for this departmental service. The services of officers have been made available at the request of the United Graziers', the Selectors', and the Local Producers' Associations for lectures and in respect of matters dealing with sheep and wool matters generally. Studmasters have been induced to type their sale rams with the object of supplying the graziers with the type recommended.

Wireless lectures are given periodically, and articles are prepared for publication in the *Agricultural Journal* and public Press. Much useful information is imparted by way of correspondence, 'phone talks, and interviews. In association with the Experimentation Committee, the Shropshire ram and twenty merino ewes which were at the Animal Health Station, Yeerongpilly, were transferred to St. Lucia. The lambs were fattened in six weeks and sold at Cannon Hill at a satisfactory price.

Farmers' Wool Scheme.—The advantage to sheep-owners, especially to small flock owners, is becoming known more fully, and, judging by the increased number of graziers who are availing themselves of the scheme, its advantages are appreciated to an increasing extent.

The number of carcases of mutton exported was 67,858, valued at £51,957, together with 21.240 carcases of lamb, valued at £17,978, practically all going to the United Kingdom. The number of woolled sheep skins exported was 304,492, valued at £68,150.

The recuperative powers of the sheep areas are well known, and with the good season experienced and a return to good or normal conditions it is felt that the losses intimated will soon be made good.

APPENDIX B.

REPORT OF THE DEPUTY REGISTRAR OF BRANDS.

DETAILS OF REGISTRATIONS, TRANSFERS, ETC., YEAR 1935-1936.

——	Number	Fees Received.			Number since inception of Legislation.
		£	s.	d.	
Three-piece brands registered	694	694	0	0	86,197
Cancelled brands re-allotted	34	102	0	0	6,982
Symbol brands registered	17	127	10	0	1,576
Cattle earmarks registered	353	353	0	0	27.528
Brands transferred ..	1,817	908	10	0	51,029
Sheep brands and earmarks registered ..	219	135	10	0	11,941
Sheep brands and earmarks transferred ..	199	49	15	0	5,701
Distinctive brands registered	10	No fee			..
Alteration of address of brands	515	No fee			..
Brands cancelled (ordinary)	14	No fee			..
Brands cancelled (special)	9,824	No fee			..
Earmarks cancelled (ordinary)	125	No fee			..
Earmarks cancelled (special)	1,877	No fee			..
Total	..	2,370	5	0	

The registration and transfer figures show an increase over those of the previous year, the increased fees received amounting to £147 10s.

The issue of notices relative to the cancellation of disused brands and earmarks has resulted in a considerable amount of correspondence being received regarding these brands, and, in many cases, transfers have been effected. The majority of notices have, however, been returned unclaimed, and, in accordance with the provisions of Sections 18 and 19 of "*The Brands Acts,* 1915 *to* 1932," action has been taken to cancel the brands and earmarks after the prescribed period of six months has elapsed since the issue of the formal notice of intention to cancel.

Approximately 9,820 brands have been cancelled during the year, and 1,877 cattle earmarks. These brands and marks will become available for re-issue after they have been out of use for a period of five years.

In addition to warnings issued to offenders for minor breaches of the Brands Acts, it was necessary to institute proceedings against two persons, who were convicted and fined.

H. S. ILIFF,
Deputy Registrar of Brands.

APPENDIX C.

STAFF INSPECTOR'S REPORT.

The Staff Inspector, Mr. L. D. CAREY, reports:—

During the year inspections were made in practically all centres in the Southern and North Coast districts.

REORGANISATION OF SUB-DISTRICT BOUNDARIES.

This work was completed during the year. Although extra districts were constituted, it was possible to so arrange the changes of the field staff to fill the new districts without additional officers. The present system eliminates overlapping.

DAIRY PRODUCE ACT.

During the year, 23,928 inspections were made of dairy premises, which is approximately 100 per cent. increase over the old system. Dairy produce premises and vehicles inspections totalled 4,911, with an increase of £125 in registration fees, equivalent to about 1,000 premises. An efficient inspectional service in co-operation with butter factory management in respect of the elimination of inferior cream has been provided.

DAIRY CATTLE IMPROVEMENT.

Valuable assistance has been given by officers in herd and advanced register testing. During the year, 3,880 cattle were tested for tuberculosis, as against 2,071 for the previous year.

DISEASES IN STOCK ACT.

The distribution of officers in the several districts has given a more efficient local service to stock owners in connection with stock ailments and diseases. A more effective control over stock movements is also noticeable by the increase in the number of permits issued in many districts.

SLAUGHTERING ACT.

The State has now been divided into seventy-three slaughtering districts. The general supervision of premises in each district is now delegated to the permanent inspector for each district, with assistance from police officers. A marked improvement is evidenced by the erection of new buildings and remodelling of others. More supervision is now given to stock slaughtered and meat sold than was possible previously.

FIELD OFFICERS OF OTHER BRANCHES.

At the latter end of the year, inspections were made of the territory of officers attached to other Branches of the Department.

OFFICE ACCOMMODATION.

Provision for office accommodation has been made by the Department of Public Works in several places, with other similar projects under review. Centralised offices are essential for public convenience.

OFFICERS' RETURN FORMS.

Monthly diary return forms for field officers have been introduced in lieu of the weekly leaflets. The new forms contain more information, and simplify checking and recording. Alterations and improvements to other forms have had attention.

OFFICERS' WORK.

During the term, officers have carried out their duties very efficiently and their co-operation with scientific branches of the Department in connection with the many field problems have been well maintained.

Some inspectors have taken advantage of a practical course in meat inspection, while many others are qualifying for dairy certificates.

REPORT OF THE DIRECTOR, ANIMAL HEALTH STATION.

The steady progress in the routine activities of the Station is shown in the subjoined table of products despatched. The figures for the previous year are shown for purposes of comparison,

Product.	22-6-34—30-6-35	30-6-35—1-7-36.
Mammitis Vaccine ..	27,154 doses	28,119 doses
Blackleg Vaccine ..	1,750 doses	765 doses
Virus Vaccine	65,779 doses (Natural)	69,332 (Cultivated)
Setons	27,423	11,610
Lactic Cultures ..	267	223
Blood	6,253	3,495
Bleeders	33	14
Stud animals stalled for inoculation	78	53
Specimens submitted for examination	3,767	5,820
Inward correspondence	3,338	4,211
Outward correspondence	5,261	7,276
Visitors	..	349
Contagious abortion samples received for test.	..	3,938*

*579 possitive, 3,190 negative, 169 haemolysed.

The increasing use of phosphatic licks by coastal farmers is reported.

During the early spring of last year, sporadic outbreaks of diarrhœa in horses, which proved fatal if not taken in hand early with medicinal treatment, spread westwards and later in the year, northwards. In addition to other prompt measures, treatment was advised in the "Agricultural Journal." These advisory notes were also issued in leaflet form for wide distribution in the several districts where outbreaks had occurred. Prompt application of the information on remedial measures so conveyed proved effective in preventing serious losses.

Cultivated Pleuro Pneumonia Vaccine Virus.—Pleuro virus vaccine, as provided by the Council of Scientific and Industrial Research, has been sent out instead of the natural virus, which had been the practice hitherto. Several stockowners refused to take this virus vaccine instead of the natural virus or pleural exudate found in bovines which had become infected with pleuro pneumonia contagiosa. Others returned it on account, they stated, of the peculiar odour of this product; but those who used the laboratory product have been convinced apparently of its uniformly satisfactory results as extra orders have come to hand from them. It is gratifying to note, therefore, that this vaccine virus has been successful. The trouble with the natural virus, which had been in use at this Station for so many years, was that results from its use were not always satisfactory, as it was impossible to standardize it. It was either too severe at times or vice versa, and was reported occasionally as not having given the necessary measure of protection against pleuro pneumonia after its use. Thousands of doses of this laboratory vaccine have been sent out to all parts of Queensland and Northern Australia. With this valuable virus vaccine always on hand, it is not necessary to wait for an outbreak of pleuro pneumonia before replenishing stocks of virus vaccine, so that it is well within the range of practical animal husbandry to control pleuro pneumonia by inoculating all young stock at branding time, regardless of age, and every following year, so that within five years a greater control of this disease might be obtained.

Pleuro pneumonia contagiosa takes a considerable toll of our cattle, particularly when on the road, and the delay entailed in quarantine and subsequent infection and the wasting in condition which follows may involve a serious economic loss. Hitherto, the difficulty has been to obtain natural virus whenever it was required, but now supplies of this product are unlimited. Laboratory prepared virus may be regarded, therefore, as a distinct and valuable contribution to the economics of the cattle industry.

Contagious Mammitis Vaccine.—Mastitis vaccine has been used extensively during the last twelve months. Further investigations have been made as to likely causes of this serious menace to the dairy farmer. The milking machine is regarded as one likely source of infection. Mechanical injury to the udder by the use of a high vacuum may be regarded as a contributory factor, and even when this defect has been remedied, the trouble seems to persist in a more or less sporadic form, but against this there remains the fact that outbreaks occur among dairy herds where milking machines are not in use. There is no doubt that excessive stripping of dairy cows leads to inflammatory condition of the teat, and certain phenomena such as small pedunculated and sessile fibromata are a result of such action, and these are commonly known as "peas in the teats." These are difficult to deal with, and an instrument called the pappillotome has been tried with a varying amount of success, but in the majority of cases failure can be recorded and the condition remains with ultimate closure of the teat duct and the loss of that quarter of the udder. As stated previously, several avenues have been explored as likely causes of mastitis with little or no success. Vaginal swabs have revealed, in persistent cases of mastitis, which do not respond to vaccine treatment and the cows are otherwise healthy, certain factors which may be contributory factors and work on these lines had been conducted for some time, but it is not possible at this stage to state whether we may achieve success in this direction. The disease, on the other hand, may be due to fungal origin and microscopical sections of diseased udder tissue may reveal something useful. A systematic survey and organised research such as that being carried out in Victoria is necessary, but lack of staff, cost, and duplication of work in the South does not justify action in this direction at this Station at present.

Contagious Abortion.—Tests have been carried out for contagious abortion. This test is carried out free of charge to the bona fide dairy farmers, and they are advised to rid their herds of this disease by culling all unprofitable and affected cattle. Recently, my attention has been drawn by the Chief Inspector of Stock to the claims made by a French veterinary surgeon in one of the veterinary periodicals of the use of Vitamin E in the treatment of this disease and later on, when a supply of this Vitamin E is available, we intend carrying out tests with it in some of the badly-infected herds with the consent of their owners.

Mr. Mulhearn's report features, to a certain extent, the varied nature of our work. The outbreak of disease among horses has been dealt with in another portion of this report.

Pyæmic hepatitis has been noticed after a neglected outbreak of strangles in horses in past years, not only in Queensland, but in other States. Arsenical poisoning has taken its toll as usual through neglect of simple precautions, particularly in dipping cattle for ticks and in careless use of dip mixtures. By far the greatest mortality has taken place in the metropolitan area, as the result of ingestion of *Cestrum parqui*, a South American garden escape which is found in some of the neglected blocks of building land and even on the banks of the Brisbane River. Two outbreaks occurred of poisoning from this weed on the Harrisville area this year, and forty cows out of sixty-five were poisoned in 1932 on the North Coast. A leaflet was prepared by myself in collaboration with Mr. White, Government Botanist, drawing attention to this weed some years ago.

Dirofilaria immitis has, for years past, been responsible for deaths of dogs within the metropolitan area. The outstanding symptom, in the latter stages, is a marked dropsical effusion into the pedulous parts of the peritoneal cavity with marked dyspnœa or difficulty in breathing.

Entomologist's and Parasitologist's Report.—Dr. Roberts's report is attached, and, as usual, some useful work which will be of practical value to poultry farmers has been accomplished. Parasites of sheep and cattle have received attention and investigational work in this connection has been extended.

Poultry Experiments.—The poultry feeding experiments at this Station have been brought to a close and useful results, which ought to assist this industry, have been reported. A few pens of fowls are still kept at this Station in connection with the experimental work in the control of poultry parasites, both internal and external.

Classes for Farmers.—Classes for farmers, arranged by the Council of Agriculture, were held during the year, and a special programme of practical work, including a post mortem examination of a tubercular cow, which would be useful to them on their return to their farms, was carried through for their benefit.

A wide variety of diseases affecting the domestic animals and birds were encountered, and the following are amongst the most important:—Pyæmic hepatitis of horses; arsenical poisoning of cattle; grass tetany in cattle; ergot poisoning in cattle; plant poisoning in cattle; tick fevers in cattle; "Yellows" or "Yellow Big-Head" in sheep; plant poisoning in sheep; carbon tetrachloride poisoning in sheep; contagious pneumonia in sheep; septicaemia in pigs; parathyroid disease of pigs; posterior paralysis of pigs; filariasis in dogs; bacillary white diarrhœa in chicks; coccidiosis in poultry; and black comb disease in poultry.

The drugs, Acaprin and Aciron, have been used in the control of tick fever with very successful results.

J. A. RUDD, L.V.Sc. (Melb.), Director.

STAFF REPORT.

Mr. C. R. Mulhearn, B.V.Sc., Government Veterinary Officer, and Mr. St. G. Thorn, Bacteriologist, report:—

Annual Report on Tick Fever Work for Year ended 30th June, 1936.

From the point of view of tick fever control the year under review has been the most important in the history of this disease in Queensland.. This was due to two factors, firstly the practical application of the results of research work carried out by the Council for Scientific and Industrial Research; and secondly, the success obtained following drug treatment of two of our most important types of tick fever.

Early in the year Dr. J. Legg, of the Animal Health Research Station, Townsville, was seconded to this Station for the purpose of applying the results of his research work to the problem of immunising highly susceptible and valuable stud cattle against the tick fevers of Queensland. As a result of this work it was considered that the most desirable vaccine for inoculation purposes should contain *Piroplasma bigeminum*, one of the local tick fever organisms, and *Anaplasma centrale*, an organism which was introduced from South Africa.

Pure strains of each of the above organisms were obtained for the preparation of reservoirs from which the vaccine has been obtained, both for inoculation of cattle at this Station and for the routine inoculation of all cattle in the field. As the two organisms are present in the reservoir only a single inoculation is required, but two reactions follow such an inoculation. The first reaction is due to *Piroplasma bigeminum* and occurs in from seven to fourteen days after inoculation, and the second or Anaplasmosis reaction is due to *Anaplasma centrale* and occurs in from twenty to forty days after the inoculation. The piroplasm reaction may be severe, but it can be controlled by drug treatment, and the anaplasm reaction is comparatively mild and does not require any special treatment. The immunity gained from such an inoculation has proved effective against all forms of tick fever in Queensland, including those due to *Babesiella argentinum* and *Anaplasma marginale*. Both of these organisms are unsuitable for inoculation purposes as they produce very severe reactions. *Anaplasma marginale* cannot be controlled by drug treatment.

During the year fifty-three stud cattle were stalled at the Station for inoculation, fifty-two were successfully immunized. The practical value of this work depends on whether the treated stock are able to survive when exposed to tick infestation. In this connection we are pleased to be able to report that during the period under review no deaths have been reported which could be attributed to tick fever.

In addition to this, 122 stud or high-grade animals were inoculated in Brisbane whilst being transferred from the tick-free to the tick-infested country. An adequate quantity of the necessary drug together with instructions for use were supplied to the owners of these cattle. The subsequent history of many of these animals is not available, but in most cases a satisfactory immunity developed before the animals became infested with tick fever organisms per medium of the ticks. In one animal only a mortality was reported, and an investigation of this case indicated that the animal was exposed to ticks immediately following inoculation and died from Babesiellosis before sufficient time had elapsed to develop an immunity to this disease. The finding at this investigation demonstrates the importance of ensuring that susceptible cattle are kept free of ticks until they have reacted and recovered following the preventive inoculation.

Approximately 3,000 doses of vaccine were supplied to graziers, both within and outside the tick area, for the preventive inoculation of cattle. The majority of such inoculations were successful, and as far as we are aware there has not been a single mortality as a direct result of this inoculation. However, a large percentage of those cattle inoculated within the tick area would be immune and consequently would not react to the inoculation.

Mortalities were reported in two separate groups of cattle, which had been previously inoculated, following their removal into the tick-infested country. However, prompt action and the supply of suitable drugs at the first report of the sickness prevented what might have been a very serious loss of valuable animals. In each case it was established that the probable cause of the mortality was the failure of the *Piroplasma bigeminum* portion of the vaccine to produce the necessary reaction and subsequent immunity as a result of the inoculation. The vaccine had been withdrawn from the reservoir animal from eighteen to twenty-four hours before it was used in each of these cases.

Previous to this experience it was generally accepted that the vaccine would remain viable and produce reactions from two to four days after it was withdrawn; however, further work on this point has demonstrated that this is not always correct and that blood from a recently recovered animal becomes sterile, in so far as *Piroplasma bigeminum* is concerned, in six hours when kept at a temperature of 37 degrees Centigrade. The organism *A. centrale* will remain viable in the vaccine for a considerably longer period than *Piroplasma bigeminum*. In view of our experiences on this aspect of the work we have adopted the practice of drawing blood immediately prior to despatch, so that it can be used, in the majority of cases, on the same day as it is withdrawn from the reservoir animal. In those cases in which this cannot be arranged the owners are instructed to watch the animals very carefully to ascertain whether or not they react as a result of the inoculation. Where any doubt exists a second inoculation is carried out.

In view of the importance of the viability of the vaccine after it is withdrawn from the reservoir, further work will be carried out to gain information on this subject. However, it is anticipated that when the value and practicability of preventive inoculation is fully realised, the demand for vaccine will become sufficiently great to warrant the keeping of reservoirs at several centres throughout the country, particularly at the junction of the tick-free and tick-infested areas.

Thirteen reservoirs have been prepared and forwarded to private owners in country districts during the year, and one reservoir was forwarded to the Departmental Veterinary Officer at Cloncurry for use in the preventive inoculation of experimental animals prior to being moved to tick-infested country on the coast. All the reservoirs contained the two organisms, *Piroplasma bigeminum* and *A. centrale*, and had recently recovered from their reactions when despatched from the Station.

DRUG TREATMENT OF TICK FEVER.

During the year piroblue in the dose rate of 100 cc's of a 1 per cent. solution has been successfully used in controlling the piroplasma reaction in stud cattle undergoing inoculation at this Station. In the majority of cases one treatment was sufficient to produce a marked improvement followed by a rapid recovery. In occasional cases it was found necessary to administer a second treatment, approximately twenty-four hours after the first, before recovery took place. As indicated by previous workers it was ascertained that piroblue was only effective against Piroplasmosis and that it was of no value in cases of Babesiellosis or Anaplasmosis. In order to be most effective piroblue must be given intravenously and considerable difficulty was experienced by untrained persons in attempting this treatment in the field.

The preparations Aciron and Acaprin, which have been used successfully in the treatment of tick fever in other countries, were obtained and tested on the Queensland strains of Piroplasmosis and Babsiellosis. The dose used was from 5 to 10 cc., according to the size of the animal, and it was always given subcutaneously. In the case of the piroplasmosis these drugs are equally effective as piroblue in that they cause a fall in temperature and the disappearance of the organisms from the circulating blood usually in less than twenty-four hours. In one case an animal became sterile following a large dose of the drug as evidenced by its failure to reproduce the disease on subinoculation of its blood to susceptible animals, but it still retained its immunity, for a large intravenous dose of blood from a reacting animal failed to reproduce the disease in this original animal fifty days after drug treatment.

The drugs also have a very definite value in the treatment of Babesiellosis, and besides the experimental animals at the Station numerous cases have been successfully treated in the field. Following treatment, there is usually a marked drop in temperature and general improvement in the condition of the animal within twenty-four hours, but the organisms do not disappear from the circulating blood as in the case of Piroplasmosis. In occasional cases where improvement is not evident it is necessary to repeat the treatment within twenty-four hours.

The advent of Aciron and Acaprin is a definite step in the right direction in the control of tick fevers in Queensland, for the dose to be given is comparatively small, the method of administration presents no difficulty to any person who has a suitable syringe and needle, and most important of all besides being effective against piroplasmosis the drugs have a definite value in the treatment of Babesiellosis—by far the most common form of tick fever met with in the field in Southern Queensland.

BLOOD SMEARS RECEIVED FOR DIAGNOSIS.

Some 150 blood smears have been received and examined. In some instances these afforded valuable information, but in many cases the preparation was unsatisfactory and consequently did not permit of a thorough microscopical examination being made.

CORRESPONDENCE.

The correspondence in connection with this work has been considerable, as we have endeavoured to furnish stockowners with the fullest information of the method of protective inoculation which has been adopted, and also the correct procedure as regards the handling of their stock subsequent to inoculation.

REPORT OF THE REGISTRAR OF PRIMARY PRODUCERS' CO-OPERATIVE ASSOCIATIONS.

"The Primary Producers' Co-operative Associations Acts, 1923 *to* 1934."

Sir,—In accordance with Rule 52 of Part II. of the Schedule to the abovenamed Acts, I have the honour to submit, for transmission to the Governor in Council, my report for the year ended 30th June, 1936.

Since the Registrar's last report four additional associations have been registered, making a total of 203 associations and 1 federation registered under the Acts.

The registrations for the year under review were:—

The Chelmsford Co-operative Dip Association Limited.

Bald Hills Co-operative Dip Association Limited.

North Queensland Tobacco Growers' Co-operative Association Limited.

Cobbii Creek Dairymen's Co-operative Dip Association Limited.

The associations registered under the Acts to 30th June, 1936, are listed below:—

Bacon Associations.—Having a capital divided into shares with limited liability	4
Barley Association.—Having a capital divided into shares with limited liability	1
Canning, Jam, and Preserving Association.—Having a capital divided into shares with limited liability. (Since cancelled) ..	1
Carrying Association.—Having a capital divided into shares with limited liability	1
Chicken Hatchery Association.—Having a capital divided into shares with limited liability	1
Cold Storage Federation.—Having a capital divided into shares with limited liability ..	1
Cotton Association.—Having a capital divided into shares with limited liability	1
Dairy, Butter, and Cheese Associations.—	
Having a capital divided into shares with limited liability	57
Without share capital, with liability limited to the assets of the Association	5
Dip Associations.—Having a capital divided into shares with limited liability	31
Egg Producers' Association.—Without share capital with liability limited to the assets of the Association	1
Farmers' Association.—With capital divided into shares with limited liability	1
Farmers' Association.—Without share capital with liability limited to the assets of the Association	1
Farmers' Distributing Association.—Having a capital divided into shares with limited liability	1
Fat Pig Selling Association.—Without share capital with liability limited to the assets of the Association	1
Fruitgrowers' Associations.—	
Having a capital divided into shares with limited liability	7
Without share capital, with liability limited to the assets of the Association	56
Fruit, Vegetable, and Poultry Association.—Having a capital divided into shares with limited liability	1
Fur Farming Association.—Having a capital divided into shares with limited liability ..	1
Milling Associations.—Having a capital divided into shares with limited liability	2
Packing Associations.—Having a capital divided into shares with limited liability	3
Peanut Growers' Associations.—Having a capital divided into shares with limited liability	5
Publication Association.—Having a capital divided into shares with limited liability ..	1
Stock and Produce Associations.—Having a capital divided into shares with limited liability	3
Stores Association.—Having a capital divided into shares with limited liability	1
Sugar Associations.—	
Having a capital divided into shares with limited liability	1
Without share capital, with liability limited to the assets of the Association	8
Tobacco Growers' Associations—	
Having a capital divided into shares with limited liability	2
Without share capital, with liability limited to the shares of the Association	3
Associations without share capital with unlimited liability	Nil
	204

Since the Acts have been operating, four associations have amalgamated and twelve have wound up voluntarily, leaving a total of 187 associations and 1 federation on the register.

During the year ten associations have found it expedient to amend their rules in order to meet changing circumstances and to conduct their co-operative activities with greater efficiency.

The number of licensed auditors has been increased by 18 to 191, and during the year 3 exemptions from the provisions of the Acts have been granted, bringing the total exemptions to 26.

A. J. EVERIST,
Registrar of Primary Producers'
Co-operative Associations.

REPORT OF THE DIRECTOR OF MARKETING FOR THE YEAR ENDED 30TH JUNE, 1936.

In accordance with the provisions of *"The Primary Producers' Organisation and Marketing Acts,* 1926 *to* 1932," I have the honour to submit herewith a report of the operations of the pools that have been constituted in relation to the various commodities under the legislative measures which have been enacted to provide for the organised marketing of primary products in Queensland.

ARROWROOT BOARD.

Personnel of the Board to 14th April, 1937: Messrs. R. Stewart (chairman), A. Rose, C. Brumm, G. R. Walker, and E. Graham (Director of Marketing).

During the year Mr. J. F. Cassidy, one of the Board members, died, thus creating a vacancy, which it was decided not to fill in the interim.

The position in respect to sales outside the Pool was somewhat unsatisfactory during the period under review. The interstate market being the main outlet for arrowroot, certain millers continued to pursue the ill-advised policy of direct individual selling, resulting in the market becoming unnecessarily depressed, prices receding to one-half approximately of those prevailing two or three years ago. No other reason can be attributed to this decline than a desire to act independently on the part of these recalcitrants, who laboured under the misapprehension that they, by individual effort, could obtain better financial returns. Such was not the case, however, for, instead of endeavouring to improve prices, they proceeded to shade the Board's selling rates in order to clear stocks, thereby creating unhealthy competition, until, with further depressed values, the stage has now almost been reached when arrowroot-growing has to be regarded as an unstable industry. This condition of affairs is one to which the Board has not in any way contributed; rather has it been responsible for lifting the industry from the chaotic conditions prevailing some years ago, and introducing and maintaining a stabilised market, as a result of which all growers and millers have until recently been considerably advantaged. The remedy for this unsatisfactory position is to bridge the anomalies in the Commonwealth Constitution in respect to the orderly marketing of primary products, thus conforming with the wishes of the majority of those engaged in the industry.

During the period under review the 1933 season's transactions were brought to a conclusion by the final payment to growers of 1s. 0·3d. per ton of bulbs delivered, the millers receiving at the same time £1 per ton of flour manufactured. The total payments for the season to growers for bulbs and millers for flour amounted to £1 4s. 0·3d. and £13 per ton respectively.

There are prospects of additional uses being found for arrowroot flour, and the possibilities of the extension of the market for the commodity are being exploited. In connection with the inquiries and investigations that are being made, the co-operation of the good offices of the Acting Agent-General for Queensland in London has been invoked. As a consequence, the Board agreed to the consignment of a sample parcel of arrowroot flour in order that the possibilities of further trade in this commodity might be definitely ascertained.

ATHERTON TABLELAND MAIZE BOARD.

Personnel of the Board to 31st March, 1937:—Messrs. J. Gargan (chairman), P. G. Martin, L. R. Crouch, R. W. Dawson, L. R. Tostevin, and E. Graham (Director of Marketing).

The Board election in April resulted in the re-election of all of the Board members, with the exception of Mr. J. F. Quilter, who was defeated by Mr. R. W. Dawson. Mr. Gargan was appointed chairman.

OPERATIONS OF STOCKS.

	Tons.	Tons.
Maize Receivals:—		
Gross deliveries by growers ..	..	11,431
Less moisture	314	
Less dead grain and offal	200	
		514
		10,917
Disposal of Stocks:—		
Total sales, including stock sold to 1936-37 Pool	11,154	
Less weight of bags sold as maize	101	
	11,053	
Deduct dead grain and offal ..	200	
		10,853
Under-run		64

Selling Prices.—Maize sales to the trade, including the sale of 563 tons at £9 per ton to the 1936-37 Pool, amounted to £98,562 16s. 4d., averaging £9 2s. 2d. per ton, while 331 tons of maize resold to growers realised £2,266 2s. 6d., thus making the total sales £100,828 18s. 10d., excluding railage and commission.

The greater part of the maize sold was disposed of in North Queensland, this portion of the State absorbing something in excess of 8,200 tons. The remainder was disposed of in interstate channels.

Poultry Foods.—The year just completed marked the inauguration by the Board of another trading activity in the manufacturing and marketing of a laying mash. Sales have increased steadily, the demand created on the Atherton Tableland having extended as far south as Innisfail, resulting in 106 tons having been disposed of to date.

The Board is now placing on the market a growing mash which it anticipates will be just as favourably received. These mashes contain 50 per cent. maize meal, and should the demand continue to increase, as the Board has every reason to believe that it will, an excellent means should be provided for the disposal of a proportion of any surplus stocks which may be on hand from time to time.

Payments to Growers.—For deliveries to the Pool growers received by way of a first advance £3 10s. net per ton for maize containing not more than 3 per cent. dead grain, with relative dockages for a higher dead grain content, while premiums varying from 6d. to 3s. per ton were paid on receivals containing less than 3 per cent. Further advances paid during the year amounted to £3 5s. per ton, the total to date being £6 15s. per ton on the 3 per cent. basis. The balance available for distribution from the 1935-36 Pool is £7,536 15s. 4d., which is equivalent, approximately, to 14s. 3d. per ton on 10,586 tons, excluding the 331 tons resold to growers.

The 1935-36 Pool's expenses amounted to £19,627 7s. 8d., equivalent to £1 14s. 4d., approximately, per ton.

Harvesting advances to the extent of £5,000 were again made available to growers by the Board during the period under review. The relations between the Board and its bankers, the E. S. and A. Bank, have been of a very satisfactory nature and arrangements for crop finance for the current season have been entered into with equally satisfactory results.

1936-37 Crop.—During the latter portion of this month deliveries commenced of the early maize of the 1936-37 crop, which it is estimated will be 20,000 tons, despite the adverse weather conditions which have prevailed during the last four or five months.

A first advance of £4 per ton is being paid to growers for maize delivered this season, as compared with the first advance of £3 10s. for the 1935-36 crop.

BARLEY BOARD.

Personnel of the Board to 23rd April, 1937.—Messrs. E. Fitzgerald (chairman), H. Kessler, and E. Graham (Director of Marketing).

Prior to the expiration of the Board members' term of office on 30th September last, nominations were called for the election of growers' representatives for the new term, but as only those of Messrs. Fitzgerald and Kessler were received they were returned unopposed, the former being appointed chairman.

As a further step in its objective to acquire malting premises, the Board recommended that the life of the Pool be extended for a further period, resulting in an extension without opposition from growers until 23rd April, 1942.

1934-35 Season.—Owing to the balance of malt stocks on hand not being taken delivery of to date, the 1934-35 Pool has not yet been finalised, but the Board anticipates being able to do so within the next two or three months.

During the year under review, a third advance was paid to growers at the rate of 4d. per bushel on all grades, the total payments up to 30th June being 2s. 4½d. to 2s. 10d. per bushel, less dockages according to quality, on Chevalier, 2s. 1d., less dockages according to quality, on Cape, and 1s. 10d. on feed. Further advances of 6d. and 4d. per bushel were also paid to those entitled to hail insurance compensation.

1935-36 Season. — The Board's receivals amounted to 58,601 bushels, 52,328 bushels of which were Chevalier, 1,946 of the Cape variety, the remaining 4,326 bushels being classified as feed.

Growers have received two advance payments, the first amounting to 1s. 9d. per bushel with relative dockages on Chevalier, and 1s. per bushel on Cape malting and feed, while the rate of the second advance was 6d. per bushel on all grades. No claims were received for hail insurance compensation in respect to the crop in question.

Contracts were completed for the sale to breweries of 15,000 bushels of malting barley, and up to 45,000 bushels of malt. The necessary finance has been obtained from the Commonwealth Bank of Australia, also 2s. per bushel to cover the expenses of malting.

As stated in my last report, the Queensland Barley Growers' Co-operative Association Limited, the directors of which are automatically the members of the Barley Board, was registered in November, 1934, the principal objects of which are to acquire premises and plant and to engage in the manufacture of malt. The Association has not functioned in these capacities up to the present, the Board having undertaken the work of processing; hence the necessity for its having to obtain the finance required from the Commonwealth Bank. The Board has indicated that, commencing with the 1936-37 season, the Association will undertake the malting of barley and handle the manufactured product on the Board's behalf.

Further negotiations were conducted with the State Wheat Board during the year in connection with the proposed purchase of "The Maltings," but to date no finality has been reached.

BROOM MILLET BOARD.

Personnel of the Board to 31st October, 1936: —Messrs. H. J. Scholl (chairman), H. Zischke, and E. Graham (Director of Marketing).

Mr. H. Niemeyer, the retiring chairman, did not nominate for the new term commencing 1st November, 1935, and as the only nominations received for the election of growers' representatives were those of Messrs. Scholl and Zischke, they were returned unopposed, the former being appointed chairman.

1934-35 Season.—This season covered the period 1st November, 1934, to 31st October, 1935. Owing to the crop being a small one, full control was not exercised; however, it was necessary for growers to send their millet to either the State Produce Agency Pty. Ltd., Brisbane, or Denham Bros. Ltd., Rockhampton, who sold all millet and accounted for same direct to growers, 5 per cent. being deducted from the gross proceeds and remitted to the Board to meet the Board's expenses. During the season in question, the quantity of broom millet received was 57 tons 5 cwt. 1 qr. 5 lb., the realisations amounting to £1,856 6s. 5d., or an average of £32 8s. 5d. per ton. The maximum selling price per ton was £41, and the minimum £10. It was impossible to secure higher prices owing to the large quantities which were available in the Southern States at a low figure.

1935-36 Season.—This season commenced on 1st November, 1935. Owing to the low prices which have prevailed during the last few seasons, only a small area of broom millet was planted, consequently the crop will only be a small one.

The Board again decided not to exercise full control, but instructed growers to send their millet to the State Produce Agency Pty. Ltd., Brisbane, or Denham Bros. Ltd., Rockhampton, who are remitting the proceeds of sales direct to growers in a similar manner to that adopted in the previous season.

To date 48 tons 13 cwt. 2 qr. 21 lb. have been received and sold, this quantity realising £2,167 16s. 4d. or an average of £44 10s. per ton. The maximum and minimum selling prices received to date have ranged from £80 to £25 per ton.

During the early part of the season considerable quantities of broom millet were available in the South, consequently the prices remained on the low side; however, during the last few months the stocks in the South have been absorbed, with the result that the Board has been able to obtain comparatively higher prices.

It is anticipated that the Queensland crop will be below local requirements; consequently the manufacturers will be obliged to procure some of their supplies from the South.

It is admittedly the case that inadequate moisture and other adverse conditions of a seasonal character were largely responsible for the comparatively low tonnage in millet production for the year, but the evidence is that farmers, suitably circumstanced, would derive benefit by planting an additional acreage under broom millet.

BUTTER BOARD.

Personnel of the Board to 31st December, 1938.—Messrs. J. Purcell (chairman), J. McRobert, T. F. Plunkett, A. G. Muller, R. M. Hill, W. J. Sloan, and E. Graham (Director of Marketing).

During the year under review, the Pool was extended without opposition from 1st July to 30th September, and later to 31st December, the Board members holding office at 30th June, 1935, being reappointed on each occasion.

On 21st November notice was given of the intention to extend the Pool for a further three years from 1st January, 1936. By Order in Council, dated 14th November, nominations were called for the election of six growers' representatives for appointment to the Board, subject to the Act, from 21st December, 1935, to 31st December, 1938. Nine nominations were received, the election resulting in the return of the existing Board members.

In respect to the continuance of the Pool, growers did not exercise the right to petition for a poll on the question; consequently the Pool was automatically extended.

Production.—Particulars of the manufacture, sales, and consignments of butter for the year under review are contained in Appendix 1. On comparing these figures with those of the previous ten years, set out in Appendix 2, it will be seen that for the first time in many years the production fell somewhat, the decrease on the 1934-35 figures being 316,618 boxes.

Consumption.—It should be noted that the particulars shown as "Queensland sales" in Appendices 1 and 2 refer to butter of Queensland origin only, and do not reveal this State's actual domestic consumption, which amounted to 515,795 boxes, made up as follows:—

Butter of Queensland manufacture as indicated in Appendix 1 ..	505,795 boxes
Butter imported from other States ..	10,000 boxes
Total	515,795 boxes

The following table shows the consumption of butter in Queensland since the Board was constituted:—

Year.	Consumption, inclusive of imports from other States.
1925-26	401,806
1926-27	407,698
1927-28	409,452
1928-29	410,879
1929-30	421,009
1930-31	414,244
1931-32	422,234
1932-33	449,520
1933-34	450,162
1934-35	473,067
1935-36	515,795

The Queensland population, according to Bulletin No. 142 issued by the Commonwealth Statistician in December, 1935, was 970,108, so that on the basis of the figures given the per capita consumption of the State is at present 29·77 lb. per annum—an increase over 1934-35 of 2 lb. approximately per capita.

Commonwealth Equalisation of Prices.—During the year there has been the closest co-operation between the Board and the Commonwealth Dairy Produce Equalisation Committee Limited. The operations of the Committee have been responsible for the holding of an average price above London parity throughout the year of approximately 12s. per cwt., which, on the quantity of Queensland butter sold during the year as indicated in Appendix 1, represents a benefit in round figures to Queensland dairy farmers of over £600,000. In arriving at this figure, it has been necessary to take estimated values in respect to the exports for April, May, and June, but the actual figures when to hand will have only a very slight effect on the position.

Yearly Returns to Factories.—Attached as Appendix 3 is a table comparing values obtaining during the years ended 30th June, 1931, 1932, 1933, 1934, 1935, and 1936. The values given represent the average net prices returned to factories. It will be noted from this table that the average value for the year 1935-36—namely, 1s. 1d. per lb.—was approximately 1¾d. per lb. greater than was the case in the previous year, thus representing an increase in value of approximately 15 per cent.

Local Marketing of Butter.—Following the constitution of the Board in February, 1925, a form of control was exercised in relation to the local marketing of butter by the licensing of agents, the agency conditions providing, among other things, that only first-quality butter should be sold locally for table purposes, and, further, that the agency commission was not to exceed 3 per cent. At the same time an equalisation system was applied whereby each factory received an equitable share of the market referred to. These arrangements proved satisfactory for some years until, with the advent of the depression, intensive competition for the local market resulted in the cutting of prices, complaints being received also concerning the quality of butter offered for sale from time to time in this channel.

This unsatisfactory state of affairs has extended also to many country centres, with the result that producers are being deprived of the margin fixed by the Board for butter sold in pats for consumption within the State. In addition to the above factors, another has arisen in respect to the Commonwealth Dairy Produce Equalisation Committee Limited. The statutory fixation of a special price for pat butter without ensuring to factories an equitable distribution of values, over and above costs, gave rise to the contention that under such a system some factories might receive considerable benefits to the disadvantage of others. It was necessary for the Board, therefore, either to discontinue fixing a pat margin or to adjust the price in such a manner that all factories would be placed on the same basis.

A thorough investigation of the position was made by the Board with a view to finding some means whereby Queensland dairy farmers would receive the benefits obtainable from a stabilised pat market. The conclusions arrived at were that if the Board were granted further powers to permit of either the elimination or reduction to a minimum of concessions by agents, the wholesale selling conditions, and in addition the retail values, could be stabilised; secondly, by ensuring to consumers a uniform butter of satisfactory quality, repacked under the most hygienic conditions possible, an increase in the State's consumption would be the probable result. As a consequence, the Board formulated a plan which later received the approval of the factories. The necessary powers were then secured by Order in Council to allow the Board's entry into a new sphere, which provides that all butter disposed of in "pat" form on the local market shall be sold by the Board, while sales outside the Greater Brisbane area shall be made in "pat" form by the factories, acting as the Board's agents, subject to such fixed values, terms, and conditions as may be determined by the Board. All butter no sold *ex* factory will be consigned to the Board at the Hamilton or Birt's Cold Stores, where the Board will make a selection for the local (Brisbane) market requirements and hand the balance over for shipment in the ordinary course, thus involving very little departure by the factories from the method at present followed in forwarding consignments to the cold stores for export.

The butter sold for consumption in Brisbane will be of the best quality, and to ensure this the whole will be patted by the Board at its own premises—now under construction at Hamilton—and supplies made available to *bona fide* wholesale distributors in pats under a brand registered by the Board. It is anticipated that the scheme will commence to operate in October next.

Finance.—It was decided, in respect to finance, that, as the Board proposed to actually enter into trading operations, its activities in this regard from the standpoint of accounts should be treated separately from those which have governed its operations in the past; consequently, all expenditure, capital and otherwise, directly relating to the new activities prior to 30th June, 1936, and all expenditure thereafter, will be charged against the new account, inclusive of ordinary trading operations.

This decision means that all funds accumulated by the Board under the system of control hitherto operating will be earmarked for eventual distribution to factories on the basis of the production of each during the period the Board was fully equalising on all sales.

In the meantime, these funds are being used by way of loan to assist in meeting the costs, capital and otherwise, of the new system of control, and as funds are available under the latter the old account will be recouped and the moneys distributed amongst factories. The total sum involved will be in the vicinity of £13,000.

As an additional assurance that the Board will have adequate financial resources to pursue its full marketing programme, arrangements have been completed with the Commonwealth Bank for a loan of £10,000, for which amount a Government guarantee has been obtained.

APPENDIX 1.

STATEMENT SHOWING (IN BOXES) TOTAL MANUFACTURE, SALES, AND CONSIGNMENTS OF QUEENSLAND BUTTER, JULY, 1935, TO JUNE, 1936.

Month.	Manufacture.	Sales.			Overseas S/Stores and other Countries.	Consigned and/or Sold to Great Britain.	Total Exports.
		Queensland.	Interstate.	East and Tinners.			
1935.							
July	85,729	48,338	27,648	4,381	1,019	13,858	19,258
August	93,547	43,589	22,043	4,496	471	14,447	19,414
September	113,437	41,983	19,912	5,025	603	37,149	42,777
October	177,222	41,459	4,115	5,518	484	110,578	116,580
November	202,486	40,362	76	6,918	350	148,652	155,920
December	205,014	42,748	..	2,854	355	137,365	140,574
1936.							
January	272,000	37,885	200	5,595	315	200,959	206,869
February	248,659	37,291	20	5,748	271	223,885	229,904
March	228,276	41,934	5,631	4,543	739	171,247	176,529
April	176,408	40,491	3,311	4,035	2,103	145,064	151,202
May	112,613	42,288	4,279	5,558	4,305	77,576	87,439
June	93,393	47,427	16,368	4,940	4,000	46,587	55,527
Totals	2,008,784	505,795	103,603	59,611	15,015	1,327,367	1,401,993

Quantity shown in boxes each containing 56 lb.

APPENDIX 2.

COMPARISON OF MANUFACTURE, SALES, AND CONSIGNMENTS OF QUEENSLAND BUTTER FOR YEARS 1925-26 TO 1935-36.

Year.	Manufacture.	Sales.			Overseas S/Stores and Other Countries.	Dunkirk.	Consigned and/or Sold to Great Britain.
		Queensland.	Interstate.	East and Tinners.			
	Boxes.	Boxes.	Boxes.	Boxes.	Boxes.	Boxes.	Boxes.
1925-26	1,074,789	399,624	51,360	19,405	1,214	1,000	608,334
1926-27	875,552	389,698	69,411	19,807	1,680	5,004	392,611
1927-28	1,240,125	376,626	60,893	35,222	4,878	..	764,539
1928-29	1,320,871	400,414	110,795	32,838	4,414	..	765,897
1929-30	1,358,954	420,389	84,712	33,503	4,284	..	805,951
1930-31	1,658,689	393,643	36,983	30,887	3,285	..	1,200,691
1931-32	1,697,445	399,785	7,075	41,286	2,145	..	1,243,950
1932-33	1,785,523	427,920	7,333	53,544	3,212	..	1,295,035
1933-34	2,212,707	425,566	9,139	68,430	4,191	..	1,692,142
1934-35	2,325,402	463,567	47,794	78,727	4,572	..	1,743,040
1935-36	2,008,784	505,795	103,603	59,611	15,015	..	1,327,367

Quantity shown in boxes each containing 56 lb.

APPENDIX 3.

COMPARISON OF NET PRICES RETURNED TO FACTORIES ON BASIS OF BOARD'S EQUALISATION FIGURES, YEARS 1930-31 TO 1935-36.

Month.	1930-1931.				1931-1932.			
	Quantity Sold (Boxes).	Total Net Value.	Net Value per Box.	Net Value per lb. (Approximate).	Quantity Sold (Boxes).	Total Net Value.	Net Value per Box.	Net Value per lb. (Approximate).
		£ s. d.	£	s. d.		£ s. d.	£	s. d.
July	89,469	361,589 18 3	4·0415106	1 5⅓	106,852	365,276 13 3	3·4185291	1 2⅝
August	97,190	362,818 16 1	3·7330878	1 4	116,584	406,126 9 10	3·4835526	1 3
September ..	112,044	378,332 8 4	3·3766415	1 2½	105,468	350,417 12 5	3·3225019	1 2¼
October ..	124,975	426,612 10 2	3·4135829	1 2⅝	132,346	416,485 11 2	3·1469449	1 1½
November ..	139,678	469,539 15 6	3·3615873	1 2⅜	120,478	373,499 15 1	3·1001491	1 1²⁄₇
December ..	152,655	533,044 9 10	3·4918247	1 3	189,338	573,669 7 7	3·0298693	1 1
January ..	130,707	463,628 13 10	3·5470839	1 3⅕	209,949	630,772 5 1	3·0044071	1 0⁶⁄₇
February ..	161,191	562,841 10 1	3·4917676	1 3	174,058	514,191 18 5	2·9541413	1 0⅝
March	215,864	755,030 15 9	3·4977152	1 3	140,891	401,619 9 0	2·8505686	1 0¼
April	148,112	501,965 10 8	3·3890943	1 2½	116,090	348,214 9 8	2·9995218	1 0⁶⁄₇
May	163,794	546,296 9 0	3·3352654	1 2²⁄₇	158,787	483,052 15 3	3·042143	1 1
June	129,810	436,702 12 10	3·364168	1 2³⁄₇	123,400	376,588 17 4	3·0517736	1 1
	1,665,489	5,798,403 10 4	3·4815022	1 3	1,694,241	5,239,915 4 1	3·0927804	1 1¼
	1932-1933.				1933-1934.			
July	115,103	364,643 16 0	3·1679781	1 1⁴⁄₇	82,151	243,728 8 5	2·9668345	1 0⁵⁄₇
August	98,066	302,213 5 6	3·0817335	1 1⅕	89,666	252,552 3 9	2·816588	1 0
September ..	91,846	266,665 3 6	2·9033945	1 0½	103,987	267,211 10 8	2·569663	0 11
October ..	111,271	299,637 16 0	2·6928651	0 11½	154,016	339,864 14 7	2·2066846	0 9³⁄₇
November ..	158,661	387,965 0 0	2·4452448	0 10½	214,133	421,993 0 3	1·9707052	0 8³⁄₇
December ..	149,088	343,180 2 10	2·301863	0 9⁶⁄₇	256,218	513,807 10 0	2·0053529	0 8⁴⁄₇
January ..	156,857	346,020 2 6	2·2059592	0 9½	238,523	502,844 0 5	2·1081574	0 9
February ..	237,577	481,251 0 0	2·0256633	0 8⅝	215,022	448,691 19 0	2·0867258	0 9
March	248,744	562,481 13 10	2·2612875	0 9⁵⁄₇	261,770	572,046 19 5	2·1853038	0 9⅜
April	169,206	390,264 19 0	2·3064487	0 9⅞	204,270	432,788 1 6	2·118706	0 9
May	152,716	370,992 13 0	2·4292979	0 10³⁄₇	247,160	669,759 4 8	2·7098205	0 11⁴⁄₇
June	97,909	271,576 1 4	2·77376	0 11⅞	132,552	364,783 16 1	2·7520053	0 11¾
	1,787,044	4,386,891 13 6	2·4548314	0 10½	2,199,468	5,030,071 8 9	2·2869492	0 9⁹⁄₁₁
	1934-1935.				1935-1936.			
July	122,086	358,646 19 0	2·9376583	1 0⁴⁄₇	95,244	319,259 18 6	3·35202139	1 2⅜
August	114,423	331,217 10 2	2·894676	1 0³⁄₇	85,046	291,183 18 9	3·42384046	1 2⁵⁄₇
September ..	140,888	373,434 4 10	2·6505753	0 11⅜	104,672	335,729 18 0	3·20744711	1 1¾
October ..	200,429	484,937 13 5	2·41949856	0 10⅜	162,154	464,725 8 11	2·8659512	1 0¼
November ..	211,616	537,835 10 5	2·54156361	0 10⅞	196,358	559,422 7 3	2·84899202	1 0¼
December ..	274,204	703,781 1 9	2·5666332	0 11	183,322	518,476 12 9	2·82822926	1 0⅛
January ..	331,547	764,243 6 2	2·30508289	0 9⅞	244,954	658,816 9 7	2·68955188	0 11½
February ..	275.915	662,799 14 0	2·40218801	0 10²⁄₇	267,215	750,106 18 6	2·80712885	1 0
March	255,294	661,510 8 9	2·59117114	0 11⅛	224,094	695,001 4 7	3·10138263	1 1¼
April	177,808	510,326 5 0	2·87009729	1 0²⁄₇	195,004	631,325 9 0	3·2375	1 1⅞
May	136,989	406,015 15 0	2·96385673	1 0⁵⁄₇	134,006	445,011 11 8	3·32083333	1 2¼
June	96,501	310,718 11 2	3·21984807	1 1¾	119,322	402,214 11 5	3·37083333	1 2³⁄₇
	2,337,700	6,105,466 19 8	2·61174101	0 11⅕	2,011,391	6,071,274 8 11	3·01844566	1 1

NOTE.—As final London figures for April, May, and June, 1936, are not yet to hand, the prices in respect of these months are estimates only.

Quantity shown in boxes each containing 56 lb.

CANARY SEED BOARD.

Personnel of the Board to 31st May, 1937:—Messrs. G. Burton (chairman), G. D. O'Neill, and E. Graham (Director of Marketing).

The Pool expired by effluxion of time on 31st May last, but prior to that date notice of intention was given of a proposal to extend pooling operations for a further three years; and with no opposition forthcoming from growers, the extension automatically followed. Nominations were called at the same time for the election of growers' representatives to hold office for the twelve months ending 31st May, 1937. The only nominations received were those of Messrs. Burton and O'Neill, who were returned unopposed, Mr. Burton being reappointed chairman.

1934-35 *Season.*—Receivals by the Board for this particular season amounted to 1,280 tons 8 cwt. 7 lb. of uncleaned seed, from which 1,055 tons 12 cwt. 2 qr. 2 lb. of cleaned seed were obtained, in addition to 214 tons 11 cwt. 2 qr. 4 lb. of gradings and broken seed. The loss in cleaning amounted to 10 tons 4 cwt. 1 lb. The realisations amounted to £33,490 0s. 9d., made up of £32,253 18s. 8d. on cleaned seed and £1,236 2s. 1d. on gradings and broken seed. The net returns to growers per ton of cleaned seed averaged £23 18s. 8d. for the season, while

£386 16s. 9d. was distributed by way of hail insurance compensation on the total assessment of 20 tons 14 cwt. 15 lb.

1935-36 *Season.*—Deliveries to the Board to date amounted to 528 tons 6 cwt. 3 qr. of uncleaned seed, which after grading yielded 428 tons 8 cwt. 27 lb. of cleaned seed and 99 tons 18 cwt. 2 qr. 1 lb. of gradings. For cleaned seed the net average price paid to growers has been £24 13s. 4d. per ton, and on the hail assessments, totalling 18 tons 7 cwt. 3 qr. 9 lb., the growers concerned have received £19 8s. 4d. net per ton by way of compensation.

It is interesting to record the increasing production in other States of this commodity, which until recent years was a crop peculiar to Queensland—at least, for the bird seed trade. The canary seed yields for 1935-36 in those States are estimated to have been in the vicinity of 900 tons. Including disposals other than through the Pool, the Queensland yield is estimated at 1,500 tons, making the total Australian production for the year 2,400 tons, thus providing sufficient to cater for the Commonwealth's annual requirements, which are estimated to be approximately 2,300 tons. As it has also been the practice in previous years to import a limited quantity of canary seed from overseas sources, it is reasonable to assume that a similar procedure has been followed on this occasion, and any such importations must, therefore, be included when considering the amount of seed available for disposal.

Two important aspects in relation to the other States producing canary seed are the maintaining of prices and the danger of over-production. In normal seasons Queensland growers have been able to produce the total requirements of the Commonwealth, and under similar seasonal conditions this State could, without difficulty, meet any increase in consumption. With the entry of other States into the field, however, care must needs be exercised lest the industry should reach beyond saturation point, the natural consequence of which would be intensive competition to dispose of stocks by price-cutting to unprofitable levels, followed by chaotic marketing conditions.

In 1930 the Board was successful in obtaining sufficient tariff protection to enable locally-produced canary seed to compete successfully on the domestic market with the seed from overseas sources. This protection, which was based on the grower's cost of production, was conditional upon the Board's undertaking not to exceed a maximum selling price of £32 10s. per ton c.i.f. Australian ports. An outlet exists overseas for canary seed, but recent surveys of this market on the Board's behalf by the Acting Agent-General have not been encouraging, the export parity being less than the prices obtainable on the Australian market. Consequently, to ensure its continued success, the organisation of the industry on a Commonwealth basis becomes an important matter for attention, so that, in the event of export having to be resorted to in the future, no section of growers will benefit unduly at the expense of others. The Board has not lost sight of these factors, and during the year has co-operated closely with the growers in South Australia and Victoria. Such questions as a mutual sales policy, in addition to other matters of a general character, were discussed, culminating in an agreement being arrived at, which has resulted in the disposal of each State's quota on a satisfactory price basis.

During the twelve months just concluded there was a noticeable increase in the number of growers who took advantage of the freedom provided in the Commonwealth Constitution in respect to interstate trade and disposed of their crops other than through the Pool. It is alleged that average prices may have been received by those who adopted this procedure, but the fact should not be lost sight of that such a practice is most uneconomic, and, if adopted generally, would seriously affect the welfare of the industry. Some producers fail to appreciate the benefits that have accrued as a result of the setting-up of their own marketing organisation, which has done and is still doing excellent work by every means in its power in the matter of obtaining for every grower a financial return whereby he will be justly compensated for his labours.

Had it not been for efforts exercised by the Canary Seed Board the tariff protection and the stabilised market now enjoyed, and for which it is directly responsible, would not have been brought about; neither would the industry have expanded as it has done, nor would the growers have received relatively better prices they have enjoyed up to the present. If the organised marketing system ceased to apply to the commodity, values would recede to such a level that canary seed growing would rapidly become an unprofitable venture, and growers would be obliged to dispose of the product to interests which, being in the position to control the price to the growers and also to the consumers, would be able to impose their own terms in relation to market values and conditions. The only alternative for a grower under such circumstances would be to retain his crop on the farm in the forlorn hope ultimately of obtaining a higher price, whereas under the pooling principle as applied to canary seed a first advance payment is assured the grower on delivery of the commodity to the Board, interim payments are made whenever it is considered that the volume of sales and the value of stocks on hand will allow of such disbursements, while a final payment is made on the termination of each season's transactions. It can be confidently stated that the total amount received from the Board by each grower has always been relatively higher than the average returns which have been netted by individuals selling on the open market. The closer the co-operation on the part of growers, the higher is the actual returns from sales. In this regard it is perhaps advisable to point out that producers' marketing organisations do not benefit unduly at the expense of the consumers, for in no instance since the inception of the system of organised marketing in Queensland can it be said that the consumer has been exploited; rather has it been the case that the cost to the latter has been lessened, while the producer at the same time has received more than would otherwise have been obtained, by reason of the reduction to a minimum of the number of hands through which the products travel before they reach the consumer, coupled with other contributory factors.

CHEESE BOARD.

Personnel of the Board to 31st December, 1938.—Messrs. D. G. O'Shea (chairman), R. C. Duncan, T. Dare, and E. Graham (Director of Marketing).

In the course of the year just concluded the Pool was extended without opposition from 1st July to 30th September, and later to 31st December, the Board members holding office at 30th June, 1935, being reappointed on each occasion.

Notice was given on 21st November of the intention to extend the Pool from 1st January, 1936, until 31st December, 1938, growers being given the right to petition for a ballot on the question. As no such petition was received, the extension of the Pool automatically followed.

Nominations were called on 21st November for the election of growers' representatives to hold office, subject to the Act, from 23rd December, 1935, until 31st December, 1938, the number of such representatives being reduced by an Order in Council of the same date from five to three. Seven nominations were received, thus necessitating an election, in which Messrs. O'Shea, Duncan, and Dare were the successful candidates, Mr. O'Shea being appointed chairman. The retiring chairman, Mr. H. T. Anderson, did not nominate.

Production.—The year under review was a particularly trying one for cheese manufacturers, as drought conditions prevailed in the producing centres during the closing months, whilst even in the spring months conditions were not normal; consequently there was a decrease of approximately 25 per cent. in production for 1935-36 as compared with the previous year, the actual figures for the two years being as under:—

	Lb.		Tons.
1934-35	12,177,541	=	5,436
1935-36	9,140,914	=	4,081
Decrease ..	3,036,627	=	1,355

Hereunder is a dissection of the production for the past two years showing the quantities of the different varieties of cheese manufactured:—

Variety.	1934-35.	1935-36.
	Lb.	Lb.
Cheddar	12,071,788	9,024,157
Gruyere	46,599	57,784
Roman and Edam	59,154	58,973
Totals	12,177,541	9,140,914

The continued decline in cheese production in Queensland is a matter which calls for serious consideration, and whilst it is perhaps one for the Cheese Manufacturers' Association, nevertheless the Board is also vitally interested, in that it might be erroneously believed that the lack of progress on the manufacturing side is associated with marketing problems. The Board has pointed out to those engaged in the industry that in 1935-36 cheese values were more remunerative to producers than for many years past, and for this reason it is of the opinion that the decline in production recorded above can be attributed entirely to seasonal difficulties, for it would be difficult to conceive that existing suppliers would discontinue their support of cheese factories in view of the enhanced returns.

Disposals and Values.—Owing to the heavy decline in production during the year, the quantity of cheese exported was considerably below the average, the Australian and process markets absorbing practically the whole of the manufacture in the winter months. The Commonwealth Dairy Produce Equalisation Committee Limited, however, in conformity with its policy of maintaining Australian prices at a fair and reasonable figure regardless of the export position, did not vary the local price for cheese during the period supplies were short, the Board supporting this attitude. The following is a summary of the disposals of Queensland cheese for the last two years:—

Market.	1934-35.		1935-36.	
	Lb.	Per cent.	Lb.	Per cent.
Australian	4,467,402	36·2	5,260,306	59·4
Overseas	7,879,389	63·8	3,599,297	40·6
Totals	12,346,791	100·0	8,859,603	100·0

In 1934-35 sales to processors were effected at the ruling local price, but as from 1st September, 1935, a concessional price has obtained for cheese sold for processing purposes, and since that date Queensland sales of cheddar cheese to processors totalled 1,451,580 lb., this quantity being included in the Australian total shown above.

The summary also shows this State's participation in the Commonwealth cheese equalisations, under which all States receive the same equalised price. For the twelve months ended 30th June, 1935, the Commonwealth equalisation value was 6.286d. per lb., whereas for the year just ended the average was 7.801d. per lb., and when the actual export realisations are taken into account for the month of June this figure should be slightly further increased.

Particulars of the disposals and equalisation values for all States operating within the Commonwealth equalisation plan over the past two years are as follows:—

1934-35.

Market.	Quantity.	Per cent.	Equalisation Value.	Average Price per lb.
	Lb.		£ s. d.	d.
Australian	18,921,618	52·7	653,996 6 9	8·295
Overseas	16,994,361	47·3	286,764 13 11	4·0498
Totals	35,915,979	100·0	940,761 0 8	6·2864
1935–36.				
Australian	23,213,745	63·6	883,656 12 4	9·1359
Overseas	13,295,703	36·4	303,020 11 7	5·47
Totals	36,509,448	100·0	1,186,677 3 11	7·801

From the foregoing figures it will be seen that the Commonwealth equalisation plan has, during 1935-36, again demonstrated its value in the scheme of orderly marketing of dairy products.

Market Conditions.—As already stated, the Australian market enjoyed a great measure of stability during the year, the following prices obtaining:—

Local (mediums), 1st July, 1935 to 30th June, 1936—9½d. per lb.

Process, 1st July, 1935, to 31st August, 1935—9½d. per lb.; 1st September, 1935, to 12th March, 1936—8d. per lb.; 13th March, 1936, to 30th June, 1936—8½d. per lb.

Realisations for cheese exported to the United Kingdom also showed an improvement, prices advancing steadily from 42s. 9d. in July, 1935, to 57s. 6d. in January, 1936, whilst the year closed with the market round about 57s. per cwt., although very little Australian cheese was then offering.

The actual quantity shipped to the United Kingdom for the twelve months to date amounted to 22,337 crates, compared with 50,312 crates for the previous year, and on the basis of the actual quantities shipped each month and the final equalisation value applied thereto the average spot price for the year worked out at approximately 53s. 7d. per cwt.

Quality.—Generally speaking, the quality of the cheese output during the year under review showed a slight improvement on the two previous years, but there is room for still further improvement in this respect. The export gradings for the past two years are set out hereunder:—

1934-35.			1935-36.		
Grade.	Crates.	Per cent.	Grade.	Crates.	Per cent.
Choicest	338	·65	Choicest	366	1·41
Firsts	12,927	24·79	Firsts	7,615	29·24
Seconds	32,736	62·78	Seconds	16,413	63·02
Thirds	5,379	10·32	Thirds	1,465	5·62
Rejects	760	1·46	Rejects	184	·71
Totals	52,140	100·00	Totals	26,043	100·00

Pool Expenses.—The administrative expenses of the Board for the year under review were equivalent to 1·83d. per 100 lb. of cheese manufactured (green weight).

COTTON BOARD.

Personnel of the Board to 31st December, 1937:—Messrs. H. R. Brake (chairman), E. Schuenemann, G. F. McRae, E. J. Basson, H. F. Lindenmayer, F. A. Kajewski, and E. Graham (Director of Marketing).

At the Board election held in December, 1935, Messrs. D. C. Pryce and J. P. Fleming did not seek re-election, and, owing to the amalgamation of districts, two members—Messrs. H. R. Brake and J. Beck—were required to contest the No. 1 district representation, resulting in the defeat of the latter.

As a result of a recommendation from the Board, steps were taken during the year to extend the Pool until 31st December, 1941. The growers were given the opportunity to petition for a poll on the question, but as no requisition was received, the Pool was automatically extended.

1934-35 *Season.*—In the early stages of the crop's growth seasonal conditions were very favourable. Planting was carried out on a reasonably moist seed-bed, and rains fell regularly and in satisfactory quantity.

Preliminary marketing arrangements were made on the assumption that the Board would require to export at least 10,000 bales of cotton. The early part of 1935, however, as stated in my last report, was hot and dry, and during the month of February weather conditions were particularly adverse. The result was that the only cotton harvested was that which was made by January of that year.

However, 14,515 bales of cotton were ginned. As this was the second highest production recorded, the prospects would have been brighter still for growers had satisfactory rain fallen during the first three months of 1935. Seed for planting approximately 61,200 acres was distributed, the number of growers receiving seed being 3,223. Only 3,194 growers, however, sent in cotton to the Board, and this was harvested from approximately 57,000 acres.

Of the total cotton produced, 13,615 bales were sold in Australia and 900 bales shipped overseas.

The total value of the crop, together with the added value of the by-products, was approximately £480,000. The working expenses, excluding interest and depreciation, but including salaries, wages of the administrative staff at the ginneries, general wages, and all ginning expenses, railway freights, shipping freights, storage, and all expenses incidental to the handling, transport, ginning, and marketing of the crop, amounted to ·58d. per lb. of seed cotton. The average return paid to growers on a seed cotton basis was 4·1d. net per lb. at growers' railway stations.

By-products.—Particulars of seed treated and by-products obtained therefrom are as follows:—

	lb.
Seed treated	15,303,200
PRODUCTS MANUFACTURED.	lb.
Cake	6,540,674
Meal No. 1	783,900
Meal No. 2	1,662,800
Bran	417,650
Cubes	3,113,678
Linters	481,298
Crude Oil	2,202,530
Refined Oil	1,779,748
Soap-making Oil	271,100
Deodorised Oil	838,450
Acid Oil	99,891

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Owing to the dry conditions which prevailed generally throughout the State, the demand for stock foods was very much greater than has been the case since the Cotton Board took control of the oil-milling operations. Whereas 3,024 short tons of cake were exported overseas during the 1934 season, it was only necessary to export 1,120 short tons during the current season.

1935-36 *Season.*—The 1936 season, the plantings for which were estimated at 63,000 acres, opened well, the early-planted crops receiving a good start. Very dry conditions prevailed, however, in the chief cotton areas during November and December, setting the whole crop back to some extent, but good rains towards the end of December assisted the earlier-planted crops and enabled the completion of the planting of late-prepared seed-beds. Further beneficial rains in January improved the crop prospects, but adverse conditions in February, followed by excessive wet weather in the Central district, and extremely dry conditions in areas south therefrom, resulted in a severe reduction in yield in all districts. It is estimated that the total production of raw cotton for the season will be in the vicinity of 12,000 bales.

To date the receivals of seed cotton amount to 14,669,667 lb., the quantity of raw cotton ginned being 10,242 bales—*i.e.*, 5,077,288 lb.

Following the revival of cotton-growing in Queensland some sixteen years ago, the continued progress of the industry has been most marked, the inception of the Cotton Board in 1926 resulting in the industry being placed on sounder lines still.

In this respect it is interesting to record the following comparative figures relating to the industry since the Board was constituted:—

Season.	No. of Growers.	Acreage.	Quantity Seed Cotton Produced.	Lint (raw cotton) Produced.	Bales.
			Lb.	Lb.	
1927	2,080	20,100	7,054,951	2,311,171	4,824
1928	2,400	24,970	12,221,598	4,110,602	8,268
1929	2,278	22,000	7,965,339	2,518,348	5,044
1930	2,241	32,781	17,006,460	5,599,400	11,051
1931	3,022	39,768	15,147,553	4,890,943	9,689
1932	4,248	61,300	6,171,254	1,990,138	3,989
1933	3,991	80,743	17,718,306	5,561,338	10,974
1934	3,764	60,000	26,861,635	8,769,510	17,471
1935	3,223	61,000	20,766,209	7,061,749	14,515

The increasing importance of the industry in the rural economy of this State is a noteworthy factor which has not been lost sight of by the Board, whose efforts on behalf of the growers amply demonstrate the benefits accruing from the application of the collective system of marketing to primary products.

EGG BOARD.

Personnel of the Board to 31st December, 1936.—R. B. Corbett (chairman), M. H. Campbell, J. de Vries, T. Hallick, W. T. Hughes, and E. Graham (Director of Marketing).

The Board members' term of office expired on 31st December, 1935, the calling of nominations resulting in the return unopposed of Messrs. Corbett, Campbell, and de Vries for Districts 1, 2, and 4, respectively. As more than one nomination was received, however, for Districts 3 and 5, a ballot was necessary in each case, the successful candidates being Messrs. Hallick and Hughes. Mr. Corbett was reappointed chairman.

Supplies.

During the year 1935-36 the quantity of eggs delivered to the Board and its agents exceeded by 5 per cent. the quantity for the previous year.

Sales.

Sales within the State also increased, and likewise the quantity of eggs which it was found necessary to send to other markets in Australia.

Oversea Export.

The Board commenced export packing operations in 1935 earlier than usual and continued later, the last shipment clearing Brisbane on the last day of the year. The firm market for late shipments assisted the Board very considerably, and slightly better average returns were received for the season than for the previous one.

The Board's exports to the United Kingdom reached record high figures at 71,760 cases (thirty dozen each), an increase of 9 per cent. over the shipments for 1934-35. However, in the aggregate the exports from Australia declined. The bulk of the Board's consignments was shipped to London, but some use was made of the outports—Glasgow, Liverpool, and Manchester.

Unfortunately the quality of some Australian eggs have not been maintained at "reputation" standard, a number of shipments from certain States being subjected to severe criticism. In all respects the consignments from Queensland were very satisfactory, but the relatively poor quality of some shipments from other parts of Australia had a very disquieting effect on the United Kingdom markets. The setback, unfortunately, occurred during the month of November, one of the most important periods of the export season. On the other hand, the late season shipments arrived to a firm market, due chiefly to wintry conditions, a comparative shortage of eggs from other Empire sources, coupled with a diversion to Germany, of continental supplies which customarily would have been shipped to British markets.

In respect to the complaints referred to above, steps have been initiated for a complete investigation of the circumstances, both in Australia and the United Kingdom, the Egg Producers' Council having assisted in the formulation of a programme for the conduct of the work, in co-operation with the Department of Commerce, the State Departments of Agriculture, and the Council for Scientific and Industrial Research. It is hoped that good results will be obtained from this combined effort, and that the information will enable the institution of measures which will prevent a recurrence of the complaints of the past two seasons.

During the year the Board made its third grant of £100 to the Department of Agriculture for the purpose of assisting in research work in connection with poultry at the Animal Health Station, Yeerongpilly.

My last report stated that the Board intended to proceed at an early date with the erection of its own premises on a site located at the corner of Makerston street and River road, North Quay. The building is at present under construction and the Board anticipates entering into occupancy in the near future.

A summary of the major marketing operations of the Board from 1st July, 1935, to 30th instant, is set out hereunder :—

——	Dozen.	Increase or decrease by comparison with 1934-35.
		Per cent.
Quantity of eggs received at packing floors of the Board	3,788,635	+ 8·45
Quantity of eggs received by Board's authorised agents	1,602,356	— 2·08
Surplus stocks transferred by agents to Board's floor	811,787	— 8·18
Eggs cold-stored	144,810	— 32·23
Eggs converted into pulp ..	108,066	— 5·28
Eggs exported overseas ..	2,120,700	+ 9·04
Eggs sent to Southern markets	768,870	+ 18·72

The average net price returned to growers for the year under review was 10·093d. per dozen for all grades, which is slightly higher than the figure realised for the previous twelve months.

THE FRUIT INDUSTRY .

INTERSTATE TRANSPORT.

The consignments of fruit and vegetables forwarded by Committee of Direction fruit train specials and by steamer to the Southern markets for the twelve months ended 30th June, 1936, were as follows :—

——	By C.O.D. Fruit Train Special.	By Steamer.	Total.
To—	Packages.	Packages.	Packages.
Victoria	468,328	3,242	471,570
New South Wales	586,618	13,235	599,853
Totals	1,054,946	16,477	1,071,423

QUEENSLAND BANANA AND PINEAPPLE TRANSACTIONS FOR TWELVE MONTHS ENDED 30TH JUNE, 1936.

Bananas.

Southern Consignments—		
By C.O.D. Fruit Trains	1½ bushel cases.	
To Melbourne	258,869	
Sydney	22,354	
Other Southern Towns ..	5,374	
	286,597	
By New South Wales Fruit Trains via Murwillumbah (Estimated) ..	100,000	
Total Interstate Consignments ..		386,597
Queensland Sales—		
Brisbane Market—	Cases.	
Cases	133,397	
Bunches, 513,614 equivalent to ..	136,964	
	270,361	
Country Sales, Estimated	89,700	
		360,061
Total Queensland Production ..		746,658

NOTE : On the Brisbane Market of the total of 133,397 cases and 513,614 bunches marketed, the C.O.D. handled 79,277 cases (59·42%), and 55,490 bunches (10·8%).

The average quantity per bunch of bananas was 7 dozen, the average price realised being 2·65d. per dozen. The average price realised for cased bananas was 7s. 3d. per case.

Approximate value of Brisbane realisations on above averages :

	£
Cases (133,397 at 7s. 3d.) ..	48,356
Bunches (513,614 each 7 dozen at 2·65d.)	39,698
	£88,054

Pineapples.

Southern Consignments—		
By C.O.D. Fruit Trains—	1½ bushel cases.	
To Melbourne	111,873	
Sydney	135,401	
Other Southern Towns ..	8,314	
Total Interstate Consignments		255,588
Queensland Sales (Approximate)		162,330
Factory Consignments—		
Winter Pack, 1935	133,705	
Summer Pack, 1936	170,895	
		304,600
Total Queensland Production		722,518

FACTORY ACTIVITIES FOR TWELVE MONTHS ENDED 30TH JUNE, 1936.

The following quantities of the various fruits have been handled for factory :—

STANTHORPE FRUITS.

Season :—December to May—

	Direct from Growers. Tons.	Ex. Market. Tons.	Tons.
Apples	162	..	
Plums	262	49½	
Peaches	2½	12½	
Apricots	½	19	
Quinces	9	..	
Tomatoes	135	74	
	571	155	= 726

CITRUS FRUITS.

Season :—April to October—

	Direct. Tons.	Ex. Market. Tons.	Tons.
Citrons	27	..	
Sevilles	106	..	
Lisbon Lemons	152	16½	
Bush Lemons	5¼	..	
Grape Fruit	¼	..	
Oranges	91	4¾	
	381½	21¼	= 403

FIGS.

			Tons.
Season :—January to April	..	..	120

PAPAWS.

Season :—July to January—

	Direct.	Ex. Market.	Tons.
Direct	289	..	
Ex. Market	..	430	
			= 719

PASSION FRUIT.

			Tons.
Season :—December to February	..	..	107

STRAWBERRIES.

			Tons.
Season :—July to December	..	..	88

TOMATOES.

Metropolitan Crop :—June to December—

	Tons.	Tons.	
Direct	71	..	
Ex. Market	..	13	
			84

PINEAPPLES.

	Direct. 1½ bushel cases.	Ex. Market. 1½ bushel cases.	
Winter Crop, 1935	133,705	13,174	
Summer Crop, 1936	170,895	15,144	
	304,600	28,318	
	332,918 cases		= 8,998

A case averages not less than 60 lb of fruit.
Approximately 37 cases to the ton.

Total Tonnage	11,245

DIRECTIONS AND LEVIES.

Directions.

The following fruits have been brought under the control of the Committee of Direction for the year ended 30th June, 1936, by direction:—

Citrus fruits
Deciduous fruits
Figs
Passion fruit
Papaws
- (*a*) For factory purposes.
- (*b*) For the purpose of prohibiting the sale of green papaws on the Brisbane market, and to stabilise the market by prohibiting the sale of blemished papaws when the price of unblemished falls to 3s. per case.

Pineapples for factory purposes.

Strawberries for factory purposes.

Tomatoes—
- (*a*) For factory purposes.
- (*b*) To stabilise the Brisbane market for Stanthorpe grown tomatoes by prohibiting the sale of "B" grade tomatoes and Small "A" grade tomatoes from such district when the price of "A" grade would not realise a higher gross amount than 4s. 6d. per half-bushel case on the market.

Plums—
To stabilise plum marketing by raising the minimum grade standard of the various varieties ⅛-inch during periods of heavy supply when the general market price of plums on the Brisbane market would not realise a higher gross amount than 3s. 6d. per half-bushel case.

(There was no occasion to enforce this direction.)

Levies.

The following levies have been in operation during the year ended 30th June, 1936:—

Banana levy—1d. for every £2 or part thereof of the net proceeds realised from sales in Queensland.

Citrus levy—1d. per bushel case; for expenditure in the interest of the Citrus Section.

Pineapple levy—½d. per case on pineapples marketed as fresh fruit and 1d. per case on factory pineapples—to meet the expenses of the Pineapple Section and the administration of the cannery crop.

Papaw levy—1d. for every four cases or part thereof; used for the advertising of papaws.

Stanthorpe levy—1s. 8d. per ton on the quantity of fruit and vegetables marketed from the Stanthorpe district, for distribution in the form of Hail Relief. Collection of this levy terminated on 22nd December, 1935.

Stanthorpe levy—3s. 4d. per ton on all fruit and vegetables marketed from the Stanthorpe district; the purpose of the levy was to create a fund for administrative purposes. Collection commenced on 21st December, 1935.

REFUNDS MADE TO GROWERS UNDER VARIOUS SYSTEMS OF FINANCE DURING THE TWELVE MONTHS ENDED 30TH JUNE, 1936.

Banana Revolving Fund.

Payments were made in December, 1935, to all growers of bananas who consigned to the Southern States during the year 1930, the refund being at the rate of 1½d. per case on bananas forwarded by the Committee of Direction fruit train specials. The amount represented by this payment was £3,779 5s.

The total amount returned per medium of this fund to Southern consignors of bananas for the years 1924 to 1930, inclusive, is £25,443 2s.

Pineapple Revolving Funds.

(*a*) *Southern Consignors.*—In October, 1935, an amount of £1,872 3s. 4d. was returned to pineapple growers who had forwarded consignments of pineapples to the Southern States by the Committee of Direction fruit train specials during the years 1930 and 1931. The rebate was at the rate of 1d. per case.

A further payment was made in February, 1936, to the Southern consignors of pineapples during the year 1932, the amount represented by this payment being £1,046 3s. 4d.

The total amount repaid from this fund to Southern consignors of pineapples for the years 1924 to 1932, inclusive, is £6,373 2s. 11d.

(*b*) *Cannery Revolving Fund.*—With the monthly payments for cannery pineapples of the winter crop, 1935, and the summer crop, 1936, repayment of 6d. per case was made on deliveries of cannery pineapples for the preceding winter and summer packs. The amounts so returned to growers are:—

	£	s.	d.
Winter crop, 1934	3,917	1	2
Summer crop, 1935	5,830	16	4
	£9,747	17	6

The total amount returned to growers from this fund is £17,065 8s. 3d.

Pineapple Export Reserve.

In the early winter pack of 1931, canning was done directly on behalf of the Committee of Direction. On the realisation of the pack there was a balance representing an amount of 2¾d. per case on the quantity of pineapples supplied for this canning. It was agreed that this should be returned to the growers concerned. As a result, an amount of £299 1s. 4d. was distributed through that channel.

Hail Relief Fund.

In the 1934-35 season the Stanthorpe district established a Hail Relief Fund by the collection of 1s. 8d. per ton on all fruit and vegetables marketed from the district. The period of collection of this levy was from 22nd December, 1934, to 22nd December, 1935. Consequently, at the commencement of the 1935-36 season, this levy was collected until 22nd December, an amount of £467 13s. 2d. being so raised.

The whole of that sum was returned on a *pro rata* basis to growers who submitted claims for hail losses incurred prior to 22nd December, 1935.

GENERAL.

Management.—On 2nd November, 1935, Mr. W. Ranger, who had been manager of the organisation since its inception in 1924, resigned from that position.

The Committee of Direction appointed Mr. Bernard Flewell-Smith as his successor on 13th December, 1935. Mr. Flewell-Smith, previous to his appointment as manager, had occupied the position of officer in charge of pineapple and factory matters generally, since he joined the staff of the organisation in 1931.

Sydney.—During the past financial year a change has also been made in the management of the Committee of Direction section in Sydney. This section continues to render valuable service to the Queensland fruit industry. The policy of the Committee has been to build the section up with supplies of Queensland tropical fruits in order that it should become recognised as the principal depot for such fruits. That this objective has been achieved to a very large extent may be gathered from the following statistics. Of the total consignments of various Queensand fruits forwarded to the Sydney market from the commencement of 1936 to date, the Committee of Direction section has handled the following percentages:—

	Per cent.
Bananas	15.9
Pineapples	20
Citrus	37.3
Tomatoes	11.3
Papaws	20.3
Custard Apples	63.1

When it is considered that on the Sydney market there is a total of 100 agents receiving consignments from Queensland, for a single section to receive such percentages of the supplies cannot be regarded as other than satisfactory. The steady increase in supplies also bears testimony to the fact that the prices returned, and the service to growers, have been satisfactory and appreciated by them.

Of the greatest value to the fruit industry as a whole is the moral effect of the growers' own selling agency. The higher the standard set by such section, the greater will be the efforts of other agents to equal or better the price and service given by the growers' section.

Rockhampton.—The establishment of the Committee of Direction section on the Rockhampton market twelve years ago promptly brought order into the chaotic conditions of marketing then existing there.

This section is particularly appreciated by the Stanthorpe growers, and of the total consignments of deciduous fruits sent direct to Rockhampton for sale, the Committee of Direction section handles over 50 per cent.

With the recent establishment of scientific ripening rooms in that centre there has been a big increase in the banana trade. The cool chamber erected in conjunction with the ripening rooms has proved invaluable as a means for holding fruit and vegetables during the summer months.

The retail department has given service to growers and consumers alike, and is now firmly established with a large clientele of regular customers.

Trading Activities.—The Committee of Direction has rendered a useful service to growers by the sale of growers' requisites at a minimum price. This branch has been able to effect reduction in the cost to growers of many requirements connected with production and marketing, such as fertilizers, sprays, germicidal dusts, fruit wraps, woodwool, lining paper, and nails.

Exclusive of the large amount of trading done in the Bowen district, purchases by growers through this branch for the year under review totals £29,637.

Advertising.—Advertising efforts have been continued. No fresh posters were printed last year, but there has been a steady demand for copies of available posters issued.

Displays of tropcal fruits have been staged at the Brisbane, Mebourne, and Auckland Agricultural Shows. At Melbourne show the model banana ripening plant was again a feature of the display, and the efficacy of the process is demonstrated in the scientifically ripened bananas which are on offer of sale to the public. In Auckland the display was perforce comprised solely of pineapples and pineapple products. New Zealand offers a good market for Queensland pineapples, but prohibits entry of all other Australian fruits, with the exception of a limited quantity of oranges from South Australia.

The pineapple poster has been distributed freely in New Zealand and agents there have expressed the opinion that it has assisted considerably in the increase in sales that has taken place.

COUNTRY FRUIT AND VEGETABLE DISTRIBUTION SCHEME.

The following table shows the quantity of fruit and vegetables that has been railed under this scheme for the twelve months ended 30th June, 1936:—

Apples		4,015
Vegetables		2,873
Pineapples		783
Bananas		782
Tomatoes		540
Citrus—		
Oranges	1,291	
Mandarins	27	
Mixed (Oranges and Mandarins)	108	
Citrons	2	
Lemons	2	
		1,430
Mixed Apples and Oranges		251
Grapes		235
Plums		155
Peaches		102
Custard Apples		88
Mixed Fruit		20
Apricots		14
Queensland Nuts		1
Half-bushel cases		11,289

Since the inception of the scheme in late January, 1935, 23,974 half-bushel cases have been despatched, on which a profit of only £45 3s. 10d. has been shown. This represents a profit of only ·45d. per case, thus clearly demonstrating that the activity has been run completely in the interests of the growers and consumers.

The scheme has not received the same support as it did in its first year, but this is understandable when it is pointed out that many growers are now doing direct trade in far distant towns with consumers who were first contacted through this scheme. Obviously, the direct trade by growers must be at rates comparable with those offered under the scheme. A contributing factor to the lessened demand has been the lowering of local retail prices in some centres to meet the competition of the scheme.

What is not so rapidly comprehended is that in certain centres of relatively dense population the benefits derivable from the scheme are being ignored by the majority of the consumers, whilst they continue complainingly to pay high prices for fruit and green vegetables and to restrict in quantity these nutritionally important items in the household diet. In the main, however, the two-fold aim of the scheme is being achieved—viz., to increase the consumption of Queensland fruits and to give consumers in far distant centres fruit and vegetables at reasonable rates.

CITRUS SECTION.

In an effort to popularise Queensland mandarins on the Sydney market and to establish a connection for this fruit with the high-class trade, the citrus section made a grant of £350 this season to permit the payment of a bonus of 2s. per case to consignors of approved quality mandarins to Sydney. The Queensland mandarin is recognised generally as being superior to the New South Wales mandarin, but owing to the heavy production in New South Wales, the Sydney market has offered little inducement to the Queensland grower. The placing of unusually heavy supplies on the Brisbane market speedily reduces the price level, so that diversion of the fruit from the Brisbane market must be to the benefit of all Queensland growers. The variety that has proved most popular on the Sydney market is the "Glen Retreat," and in the last two months of the year, of a total of 2,605 cases consigned South, the greater percentage was of this variety. The trade connection thus established may prove of benefit to Queensland mandarin growers in subsequent years, as the "Glen Retreat" is now recognised as the outstanding mandarin marketed in Sydney, and it commands a substantial premium over other varieties.

BANANA SECTION.

Production.—The year has been characterised by oversupplied markets, with consequent low prices. In this can be found the reason for the decreased interstate disposals, amounting to approximately 100,000 cases less than the previous twelve months.

No true perspective of the Queensland banana industry is possible without some consideration is given to the situation in New South Wales, whence the increased production has come. The following particulars indicate the increasing quantities of bananas that the Southern markets (at one time the principal markets for the Queensland production) have been called upon to absorb.

	1½-Bushel Cases.	
	1935-36.	1934-35.
From Queensland—		
C.O.D. Trains	286,597	409,380
Via Murwillumbah (estimated)	100,000	75,000
	386,597	484,308
From New South Wales	1,116,458	956,902
Total	1,503,055	1,441,210

Trading activities in the Queensland product in Sydney are now negligible, Melbourne being the main market, but even to that market the quantity consigned from New South Wales was 483,597 cases against 258,869 cases railed from Queensland, a difference of 224,728 cases in favour of New South Wales.

The figure of 1,116,458 cases from New South Wales for the current financial year would represent approximately the total production of that State.

Organised Marketing.—During the year the New South Wales Banana Marketing Board commenced to function, and the close co-operation between the grower organisations in both States is a pleasing feature of the situation.

Ripening Rooms.—The Committee of Direction ripening rooms in Brisbane, Sydney, and Melbourne during this period of difficult marketing have been of distinct benefit to the industry. The operation of the Brisbane rooms has been responsible for the creation of a market for cased bananas, so necessary because of the increased quantities of the fruit placed on the Southern markets. The local market price during the past year has equalled Melbourne parity, and at times has been in excess of Melbourne parity. The reduced marketing costs consequent on sending to Brisbane have made this market a popular one, and large quantities of bananas have been consigned to Brisbane, for which a minimum price of 4s. has been generally maintained.

In January, 1936, the Committee of Direction, in continuance of its policy to establish scientific ripening rooms as adjuncts to the principal markets for Queensland bananas, erected a plant at Rockhampton, comprising two ripening rooms with a capacity of 350 cases, together with cold storage accommodation. The total expenditure in the erection of ripening rooms in Brisbane, Sydney, Melbourne, and Rockhampton is now £20,000.

The value of the correct method of ripening bananas has been proved by the big increase in consumption which immediately follows the opening of rooms in any centre. It can be justly claimed that the increase in consumption in Queensland from approximately 185,000 cases in 1932 to 380,000 in 1936 is due largely to the superiority of the article when ripened by the scientific process.

PINEAPPLE SECTION.

Production.—A feature of pineapple marketing was the abnormally small winter crop last year, followed by a small summer crop this year. This resulted in the canners' demands for fresh fruit not being fulfilled. Growers thus had an excellent opportunity to keep market prices at a satisfactory level. The decrease in production can be attributed to unfavourable growing conditions, as the census taken by the Committee of Direction each year indicates an increase in acreage.

Cannery Position.—In view of the comparatively small volume of the crops, it was agreed by canners that the requirements of the Australian market for canned pineapple should be met as far as possible. Because of the fact, however, that a considerable sum had been expended in past years in establishing a market for Australian canned pineapples in Canada and in England, also that when production again became normal these markets would be useful as a relief to the Australian market, it was decided that a certain proportion of the crops should be processed for export, thereby maintaining the overseas connection.

Export was again assisted by a grant from the Fruit Industry Sugar Concession Committee, which grant for the year 1935 was £16,000, and for 1936 is £12,000. In no year, since 1932, when this grant was first made available, has the full amount been expended. Notification has recently been received that efforts to secure free entry of Australian canned pineapples into Canada have at last been successful, and provision will be made in future canning programmes for supplies for that market. The cannery position can thus be regarded as satisfactory.

Investigation and Research.—The short crops, coinciding with increased demands from overseas and the Australian markets, demonstrate the advantages likely to result from increased production. Generally it is recognised that an intensive investigational survey of the industry is necessary before the production of pineapples is to be placed on a sound economic basis. Accordingly a committee was formed, comprising growers, canners, and Departmental officers, to suggest a programme of investigational work contingent on continuance of a grant from the Fruit Industry Sugar Concession Committee. The proposal received the approval of the Minister, who in turn submitted it to the Fruit Industry Sugar Concession Committee, when making application for such grant. In the meantime, the Pineapple Sectional Group Committee has made available £225 Australian currency to finance a visit by a plant pathologist to the Hawaiian Islands, the seat of the world's pineapple producing and canning industries. A pathologist left Queensland in April last, and is due to return in August.

The pineapple promises to become one of the most stable of Queensland fruits. In the methods adopted in the disposal of the fruit to canners, the advantages of controlled marketing are clearly demonstrated, and were similar measures of control extended to the marketing of the whole of the crop, no doubt further benefit to the growers would result.

OTHER FRUITS SECTION.

Papaws.—The keen demand for tropical fruit salad, the principal constituent of which is papaw, was well maintained throughout the year, with the result that 719 tons of ripe papaws were placed for this purpose, against 267 tons the previous year. The deliveries principally were made direct to the factory, supplies being supplemented by market purchases. The demand was in excess of the supply, no canner receiving his full requirements, and the clearances from the market resulted in satisfactory prices being maintained for good quality lines.

Although the volume of the crop was lighter than usual, with a heavier demand by factories, there was an increase in the interstate trade in the fruit. This is due to the effect of advertising, and the campaign conducted to induce growers to forward only fruit allowed to reach maximum maturity on the trees, thus ensuring to the consumer the flavour and aroma characteristic of this fruit when fully ripe.

Tomatoes.—Queensland tomato growers are now having to meet on the Southern markets increasing competition from West Australian tomatoes and hothouse tomatoes grown in New South Wales. At one time the spring crop of our metropolitan growers enjoyed almost a monopoly of the Sydney market. Improved production methods have been adopted, and the trellising of tomatoes is now being undertaken more extensively.

Strawberries.—The whole of the 1935 crop, both of jam and canning berries, was placed with canners. A price increase of ½d. per lb. was secured for the 1936 season.

Figs.—For the first time for many years, the whole of the figs offering were placed with canners, at a price increase of ¼d. per lb., fig growers experiencing the best season over a number of years.

DECIDUOUS SECTION.

Apples.—The production of apples from the Stanthorpe district is now such that export and cold storage are necessary, the market being unable to absorb at satisfactory prices the whole production at the time of harvesting, as it did some few years ago. Accordingly, growers are encouraged to export by the payment of a bonus of 1s. per case on all fruit exported through the Committee of Direction "on consignment."

Sales are also made direct to exporters, but in these instances the risk lies with the exporter. Last season a total of 25,632 (1 bushel) cases of apples was exported to the following destinations:—

United Kingdom	18,834
East	4,140
Continent	2,377
Other Places	281
	25,632

Of this total, 4,473 cases were shipped "on consignment" through the Committee of Direction to the United Kingdom, the balance being purchased by various exporters from growers on an f.o.r. basis. It was anticipated, at the commencement of the season, that a much heavier quantity would be exported, but hail storms considerably reduced the quantity ultimately available.

Satisfactory prices were received for Granny Smiths, the average realisation over the whole season for this variety being 11s. 5d. per case gross in England, with a return of 7s. ·28d. to the grower at Stanthorpe, plus the bonus of 1s. The average realisation for the Jonathan variety over the season was 4s. 4·07d. net at Stanthorpe, without bonus. No other variety, with the exception of Granny Smiths, returned a net average above this figure, the lowest net average being for Statesman at 2s. 6·77d. Stanthorpe. The season's experience would seem to demonstrate that satisfactory returns can be expected for Granny Smiths. In past seasons the Deciduous Sectional Group Committee has approved of the equalisation of overseas net returns to 5s. per case, the necessary payment being made from the Apple Fund, so that growers undertaking the risk of export should not be at any great monetary disadvantage. Continuance of this plan is again under consideration, and it is expected that similar action will be taken for the 1936 export season.

Plums.—The marketing of plums last season was considerably assisted by arrangements which the Committee of Direction was able to make for the first time for one of the Brisbane factories to operate during the Christmas-New Year period.

Grapes.—The grape production in the Stanthorpe district has not been sufficiently heavy to cause a marketing problem, local markets being able to absorb the quantities offering at payable prices. The yearly census, however, discloses that plantings have increased considerably, and growers can visualise the time when export markets will be required. The variety most extensively planted, and for which other outlets will be required, is the Muscat. This is an excellent dessert grape, but unfortunately it has not the carrying qualities of hard varieties, such as the Waltham Cross and Ohanez. Successful experimental shipments of Muscats have, however, been made to Vancouver, and last season an experimental shipment of 176 cases was forwarded to London. An experimental chamber on the boat was obtained for this shipment, and as the ship was making a fast voyage, the prospects for the consignment carrying satisfactorily appeared to be good. The result was rather disappointing, but advice received from London is to the effect that further shipments should be experimented with. For this trial consignment growers were guaranteed 4s. per case for the naked fruit, and were to receive any surplus over the forwarding and packing costs. Unfortunately, a deficiency of £32 resulted, which is being met from Deciduous funds. A consignment of 100 cases was also sent to the East. Some Muscats were included in this consignment, but advice has been received that owing to the prejudice existing in Eastern countries against dark colours—green apples and green grapes sell readily in the East—the Muscats proved unprofitable.

Hail Relief.—The district again suffered a series of particularly disastrous hail storms. The district could not reach unanimity on the matter of hail insurance or hail relief, and consequently no fund was created for the compensation of growers. During the previous season, however, a levy of 1s. 8d. per ton had been agreed upon for hail compensation, and as the period of collection of this levy was from 22nd December, 1934, to 22nd December, 1935, the levy was consequently collected at the commencement of the 1935-36 season until 22nd December. The amount so raised was £476 13s. 2d., and it was decided that this amount should be distributed *pro rata* to growers who submitted claims for losses sustained by hail before 22nd December. Ninety growers made application for assistance up to such date, the estimated damage on a conservative basis being £8,500. The amount of assistance for each grower, therefore, was relatively small. Several hail storms occurred after 22nd December, but no funds were available for assistance because of damage done by these storms. The estimated damage occasioned by hail over the whole of the season is £15,100. The necessity for a form of insurance or compensation is obvious, and a hail compensation scheme is now under consideration.

FACTORY OUTLETS FOR FRUITS.

There has been close co-operation between canners and the Committee of Direction, and during the year under review the following increases in prices were obtained:—

Pineapples, from 4s. to 4s. 6d. per case.
Tomatoes, from £6 10s. to £7 6s. 8d. per ton.
Plums, from £8 to £8 7s. 6d. per ton.
Sevilles—1st grade, from £8 to £10 10s. per ton; 2nd grade, from £6 to £8 per ton.
Figs, from 1½d. to 1¾d. per lb.
Papaws (ripe), from 2s. to 2s. 3d. per case; (green), from £6 10s. to £7 per ton.
Strawberries (canning), from 6d. to 6¼d. per lb.; (jam), from 4½d. to 5d. per lb.
Passion Fruit, from 7s. to 9s. per bag.

There were insufficient supplies to meet fully factory requirements in the following fruits:—Pineapples, plums, Seville oranges, figs, papaws, strawberries, passion fruit.

HONEY BOARD.

Personnel of the Board to 8th March, 1938.—Messrs. O. N. Tanner (chairman), C. W. Edwards, R. V. Woodrow, H. E. Fagg, and E. Graham (Director of Marketing).

On calling for nominations for the election of four growers' representatives to hold office for the two-years term commencing on 9th March last, five candidates' names were submitted, necessitating an election, which resulted in the return of the Board members holding office up to that time. Mr. Tanner was reappointed chairman.

Receivals by the Board for the year amounted to 9,224 (60 lb.) tins, which with the stocks on hand at 1st July, 1935—3,774 tins—increased the quantity available for disposal to 12,998 tins. Of this amount 11,772 tins were sold at prices varying from 4¼d. to 1½d. per lb. In addition, 11,562 lb. of beeswax were received in the course of the year, the gross realisations ranging from 1s. 4d. to 1s 8d. per lb.

As was the case in the previous twelve months, large quantities of second-grade honey were received, the Board experiencing difficulty in disposing of same without having to reduce prices. Furthermore, the low values predominating for first-grade in other States, together with the large supplies offering from those sources, presented further difficulties in the endeavour to retain the business of some local packers. Over the last six months, however, a steady reduction of the stocks of second and lower grades has fortunately taken place, the decrease having been partly assisted through the adverse seasonal conditions over recent months resulting in a shortage of bee feed, thus necessitating the purchase by apiarists of a considerable quantity of low-grade honey.

Another factor which prevented the speedy and satisfactory disposal of honey received by the Board was the unsatisfactory condition in which some consignments were prepared by beekeepers for market, thereby rendering the product unattractive to buyers. In certain instances the fault was attributable to dirty tins, while in others the honey was not sufficiently clear from particles of foreign matter such as wax, pollen, and dead bees. Some of the consignments coming under this category consisted of what was otherwise to be regarded as good-quality honey, the appearance of which detracted from the prices which, in the absence of these defects, could otherwise have been obtained. In this connection, arrangements were made by the Board for a number of tins to be treated with a view to removing the foreign matter and improving the quality. This action proved advantageous to the growers concerned, as, for example, 4d. per lb. was obtained for one line after treatment, whereas when originally received in the agent's section the market value was around 2½d. per lb.

This fault is one to which the Board has made frequent reference in its quarterly circulars to and correspondence with bee-keepers, and those apiarists concerned would be well advised to pay heed to the Board's advice in connection with the preparation of their product for market so that the ultimate return will be based on quality and devoid of all foreign admixtures. Generally, beekeepers are required to deliver their honey and beeswax to the Board's Brisbane agency, a first advance being paid to honey producers by the agent after receipt of consignments. The practice of allowing direct local sales by growers is being continued by the Board in those cases where it is of the opinion that the necessary permission is warranted.

With a view to increasing the popularity of honey, the Board launched a publicity campaign during the year, by means of advertising on railway stations and the screen, in addition to the publication of some thousands of leaflets containing recipes and appropriate information concerning the food value of honey and the uses to which it could be applied. As those in the trade have advised that in recent months there has been a noticeable increase in the demand for honey on the part of consumers, it is reasonable to assume that such publicity is benefiting the industry generally. The Board is continuing with its policy in this direction.

NORTHERN PIG BOARD.

Personnel of the Board to 31st December, 1936.—Messrs. D. Johnston (chairman), R. Campbell, F. W. Collard, J. E. Foxwell, A. A. Knudson, and E. Graham (Director of Marketing).

The Pool expired by effluxion of time on 31st December last, but was extended without opposition for a further five years until December, 1940. All of the Board members who were in office during the year 1935 were returned unopposed, Mr. Johnston being re-elected chairman.

During the year under review, the Board received 9,700 pigs, which were graded as follows:—

First grade	7,528
Second grade	1,702
Third grade	166
For small goods purposes ..	304
	9,700

Two hundred and eleven head of cattle were also handled. Four hundred and thirteen pigs were sold to butchers, the balance being taken over by the North Queensland Co-operative Bacon Association Limited.

The quality of the pigs received during the year showed an improvement, with the exception of some being over-fat. This defect should shortly be remedied as the longer-bodied breed of pigs displaces the shorter-bodied types.

The Northern market at all times requires medium to lean-fleshed bacon or pork.

The average price paid for first quality pigs was 4·89d. per pound dressed weight as compared with 4·83d. of the previous year.

The total amount paid to growers was £20,361 6s. 2d., and the Board's net profit for the year was £156 9s. 6d.

The prospects for the coming year are brighter for a heavier supply of pigs, as the result of increased numbers of farmers becoming interested in pig raising.

The demand in the Northern portion of this State for pig products in the form of bacon, pork, and small goods exceeds somewhat the output of the Northern Pig Pool, and farmers in the North, favoured as they are with grain, skim milk, and other suitable fodders in abundant supply, should find it advantageous to devote increased attention to pig raising and fattening.

PEANUT BOARD.

Personnel of the Board to 27th August, 1936.—Messrs C. F. Adermann (chairman), R. R. Nothling, L. V. Young, A. G. Whiting, and E. Graham (Director of Marketing).

Messrs. Adermann and Nothling retired in August last at the expiration of the period for which they had been appointed, but on being nominated again were returned unopposed, Mr. Adermann being reappointed as chairman for the ensuing twelve months.

1933 *Season.*—A final advance at the rate of 1/32d. per lb. was paid on this particular crop in September last, the total net payments to growers amounting to £22,161 8s. 5d., excluding the levy of £2,811 3s. 11d. collected under the Peanut Board Levy Regulations for specific purposes, which include the payments of interest and redemption on the silo loan.

The administrative expenses of the 1933 Pool amounted to 1·70d. net per lb.

1934 *Season.*—This season's operations were also finalised during the period under review by a final payment of 2/3d. per lb., involving the distribution of £20,166 1s. 11d. An analysis of the 1934 Pool's complete transactions revealed that the average net payments per lb. to growers at their railway stations were 3·15d. on the Virginian Bunch variety and 2·67d. on Spanish and Valencias. These payments are the highest made to growers for the Virginian Bunch and Spanish varieties since the 1929 and 1928 seasons respectively.

The net administrative expenses of the Pool in question were ·99d. per lb., and the total amount of levy collected on the whole crop £7,561 17s. 5d.

1935 *Season.*—The total receivals of peanuts for this season constituted a record, amounting to 4,298 tons.

A second advance of ¼d. per lb. was paid to growers on 20th March last, making the total advances to date £83,924 16s. 6d. These figures do not include the levy of ¼d. per lb., which amounted to £10,029 18s. 2d.

1936 *Season.*—Over-production in the Spanish variety of peanuts, together with intensive competition on the part of those who, taking advantage of the anomalies contained in the Commonwealth Constitution, operated outside the Pool, were the principal factors with which the Board had to contend in the year 1935-36. The unsatisfactory position the organised marketing system has been placed in provides a striking contrast when compared with the conditions prevailing prior to the advent of the legal obstacles, to which it is trusted adequate remedial measures will be applied in the very near future.

The 1924 season marked the first occasion on which peanuts could be regarded as having been grown on a commercial scale to any extent in Queensland. Realising the advantages to be gained by organised marketing, the growers availed themselves of the opportunity provided under Queensland legislation to set up a commodity board for the disposal of peanuts, thereby ensuring increased stability in the conditions of marketing and establishing in respect to the selling and buying interests a reasonably priced product conforming to satisfactory standards of quality. Being assured of a relatively stable market under these conditions, growers have increased their production from season to season, as will be seen in the following table:—

Season.	Growers.	Acres.	Tonnage.	Value of Crop.		
				£	s.	d.
1924	100	691	231	10,657	10	8
1925	86	450	142	7,024	0	9
1926	250	3,000	827	38,418	4	2
1927	358	6,500	2,246	79,711	0	5
1928	557	11,500	2,886	107,930	13	8
1929	387	5,500	3,618	116,400	9	1
1930	250	2,300	727	25,773	12	6
1931	428	5,000	2,673	103,334	13	9
1932	216	2,000	551	18,788	13	10
1933	307	2,700	1,205	38,255	4	8
1934	562	9,500	3,240	118,143	18	8
1935	652	12,500	4,300	140,000 (Estimated.)	0	0
1936 (Estimated)	850	15,155	6,000	..		

The substantial expansion of the industry necessitated the erection at Kingaroy of bulk storage equipped with the most modern machinery known for the treatment of peanuts for marketing, the expenditure involved being £55,000. Later, additional premises and plant costing approximately £2,000 were acquired at Rockhampton and arrangements were made for the construction of extra storage space at Kingaroy. Negotiations are also being conducted for the provision of improved storage and treatment facilities on the Atherton Tableland. These and other means have been adopted by the Peanut Board and the Queensland Peanut Growers' Co-operative Association, Limited—the kindred organisation created and controlled by the Board as the holding body for the fixed assets of the industry—in their fervent efforts to foster peanut cultivation in Queensland and to stabilise the market for the commodity.

The present legal difficulties in respect to the orderly marketing of primary products have impeded somewhat the Board's endeavours to maintain price levels on a scale which growers reasonably are entitled to receive. Unhealthy competition has been caused by outside operators engaging in price-cutting, leaving the Board little other alternative than to follow suit in order to retain its trade connections. The natural consequences of such actions will be reflected in the financial returns received, not only by producers supplying the Pool, but also by those ill-advised growers who imagined that improved prices were obtainable by individual selling to speculators outside the Pool. It should be noted that these remarks apply particularly to the Spanish variety, which comparatively is an easier crop to handle and prepare for market than the Virginian Bunch, hence the reason for the outside operators usually deciding to concentrate on that particular type of nut.

Notwithstanding the difficulty outlined above, the Pool Board is in a strong position, the sales figures for the year 1936 constituting a record, while the indications are that, following the clearance of competitors' stocks in the near future, the Spanish market will react in the Board's favour. The Pool's stocks of Spanish nuts are sufficient to meet the requirements of the Commonwealth for at least another twelve months ahead; hence outside operators will not be readily disposed to continue competition in this trade, which offers no promise of profits to those that buy or sell outside the Pool. In view of this surplus of Red Spanish and the lowered values now ruling, growers will be discouraged definitely from planting this variety in the coming season.

Regarding the matter of over-production, it was the case that the Board advised growers prior to the 1936 planting season to reduce their production of Spanish and give greater attention to the cultivation of Virginian Bunch, because of the increasing demand for the larger-sized nut. Weather conditions precluded some growers from carrying out the recommendation, but in other cases the influence of outside buyers was responsible for a section of growers not heeding the Board's warning. Receivals of the nuts by the Pool to date this season amount to 3,054 tons of all varieties of peanuts, and it is estimated that there are still in the fields at least another 3,000 tons.

It is the Board's intention to stress again this point prior to the next planting season, also to advise growers at the same time that the production of Virginian Bunch should not exceed 4,500 tons, which amount, after making allowances for a steadily increasing demand for this variety, should be sufficient to satisfy Commonwealth requirements until the 1938 crop is available.

Finance.—Difficulty was experienced by the Board in the matter of arranging with the Rural Credits Branch of the Commonwealth Bank for the 1936 crop finance, the bank refusing to make satisfactory advances on any basis without a Government guarantee, the grounds being that the production of the Red Spanish variety of peanuts was much in excess of trade requirements.

In the former year the moneys necessary to allow Pool Boards to make advance payments to growers delivering the commodity to the Pool was found by the financial institutions on the security of the product and without request for a guarantee by the Government for the amounts involved. This principle has been found sound in practice throughout the history of collective marketing, and Pool Boards since their inception have obtained on loan from the banks in the aggregate an amount approximating £150,000,000 for this purpose, and no financial institution has suffered loss by failure of a Pool Board to make repayment.

Under these circumstances it can be readily understood that reversion to the practice of insistence upon a guarantee being given for the amount of overdraft was not viewed with favour by either the Government or the Pool Board concerned.

Ultimately, the guarantee was given by the Government to the bank for an amount of £119,000, and that sum was accordingly made avalable by the bank to the Pool Board for the purpose of making an advance payment to growers delivering peanuts to the Pool. The rate of payment on peanuts will be on a similar basis to that operative during the two preceding seasons.

NORTHERN PLYWOOD AND VENEER BOARD.

Personnel of the Board to 2nd May, 1937.—Messrs. J. F. Brett (Chairman), G. D. Gummow, A. E. Gibson (Deputy for the Director of Marketing), and G. A. Duffy (Chairman, Timber Advisory Committee, Forestry Sub-Department).

The period for which the Pool had been originally constituted terminated on 2nd May, 1936; but prior to this date a notice of intention to extend the Pool for a further three years was issued. The extension automatically followed without opposition, the personnel of the Board remaining as above, Mr. Brett being re-elected chairman.

During the year excessive wet weather militated seriously against the activities of the manufacturers, but nevertheless several million feet of plywood and veneer was marketed, and it is expected that during this year's operations a more advanced policy will be conformed to.

This Board is working, in conjunction with the Plywood and Veneer Board, which operates in the rest of the State, in a very definite method of orderly marketing.

PLYWOOD AND VENEER BOARD.

Personnel of the Board to 2nd May, 1937:—Messrs. J. F. Brett (Chairman), R. H. Bentley, G. Brown, J. E. Christoe, J. W. Jackson, G W. Nutting, J. H. Hancock, R. J. Donaldson, M J. G. Brims, C. R. Paterson, A. E. Gibson (Deputy for Director of Marketing), and G. A. Duffy (Chairman, Timber Advisory Committee, Forestry Sub-Department).

In August, 1935, Messrs. Hancock Bros. Pty. Ltd., of North Ipswich, applied to become members of the organisation, and Mr. Vivian Hancock was accordingly appointed to the Board in place of Mr. P. S. Reid, who resigned. In May, 1936, Mr. C. R. Paterson joined the firm of Hancock Bros., and, on the resignation of Mr. Vivian Hancock, became this firm's representative. Mr. J. H. Hancock was then appointed to the Board to represent Messrs. Hancock and Gore, Ltd.

Prior to its expiration by the effluxion of time on 2nd May last, notice of intention was given to extend the Pool for a further three years. This was done accordingly without opposition.

In reviewing the operations for the past year, it can definitely be asserted that part, at least, of the Board's policy has been achieved, in that stabilisation of the marketing of the product throughout Australia has been maintained and the quality of the plywood produced has been immeasurably improved.

In my last report it was stated that applications had been called for the position of chemist to the Board, for the purpose of applying more scientific methods and engaging in research in regard to the general production of plywood. An appointment was duly made on the 1st October, 1935, the results of the work carried out to date being apparent in various ways, including the continuous examination of raw materials and the testing of plywood and general construction.

It should also be mentioned that for three months during the past year an officer of the Council for Scientific and Industrial Research was associated with the Board's chemist in a detailed investigation into the plywood industry in Queensland. A confidential report has been forwarded to each mill and a general report has been received by the Board. Various suggestions and recommendations have been put into practice, resulting in a much further advanced manufacture. From the foregoing it will be seen that the members of the Board are sincere in their desire that Queensland-made plywood shall rank amongst the world's best.

In connection with the Board's research work, valuable assistance has been received from the Queensland University, in whose laboratories much testing work has been done. The Board has also had the full co-operation of the Forestry Department's technical staff and the use of that Department's plant at Newstead. In conjunction with the same Department an experimental plant is being installed for the full testing of any plywood, and this will be a useful adjunct to the Board's equipment.

A further donation to the funds of the Council for Scientific and Industrial Research has been made by the Board in order that further research may be proceeded with, particularly with investigations into the question of protection against borer attack. This will be the subject of intense research in the new and up-to-date laboratories of the Council for Scientific and Industrial Research in Melbourne.

The total quantity of pine plywood delivered for the year ended 30th June, 1936, was 54,428,107 square feet, made up as follows, and valued at £380,996:—

	Square feet.
Queensland	6,379,024
Interstate	47,790,073
Great Britain	259,010
	54,428,107

The administrative expenses for the period were ·82d. per 100 square feet, and quantity discount (that is, a bonus paid to encourage the booking of large orders and the holding of stocks by Southern merchants), absorbed 1·23d., while technical work absorbed ·22d., making a total of 2·27d.

In conclusion, it should be mentioned that this Board is working in conjunction with the activities of the Northern Plywood and Veneer Board, which functions in the northern portion of the State, from the twenty-third degree of south latitude, in respect to plywood and veneer produced in that area.

STATE WHEAT BOARD.

Personnel of the Board to 31st August, 1938.—Messrs. E. A. Thomas (chairman), W. J. Brimblecombe, T. W. McIntyre, T. Brewer, E. Graham (Director of Marketing).

Nominations were called in June, 1935, for four growers' representatives to hold office from 1st August last for one or three years, provision being made in the election regulations for the term of office to be determined by a ballot of growers. Six nominations were received, including those of the Board members in office up to that time, but shortly after the issuing of ballot-papers, however, the election was cancelled on account of the sudden death of one of the candidates, Mr. J. J. Booth, a Board member, and fresh nominations were invited. Ten nominations were submitted, culminating in the election of the present personnel. In respect to the ballot on the term of office, as the vote resulted in 1,296 favouring a period of three years and 621 growers one year, the Board was appointed for the longer period with Mr. Thomas as chairman.

1934-35 *Season.*—The total yield for 1934-35 season, based on the returns furnished by growers, was 3,973,320 bushels, the deliveries to the Pool, after allowing for wheat retained on farms for seed and feed purposes, being as follows:—

Classification.	Deliveries.		Percentage.	Net payments to growers per bushel.
	Bushels.	lbs.		
Milling—				
Q1	2,507,047	·02	68·17	3s. 1½d.
Q2	970,526	·05	26·39	3s. 0¼d. to 2s. 10½d.
Q2A	164,178	·33	4·46	2s. 10¼d. to 2s. 8½d.
	3,641,751	·40	99·02	
Feed—				
F1A	18,697	·04	·51	2s. 7½d.
F1	16,115	·01	·44	2s. 4½d.
F2	1,045	·40	·03	2s. 3d.
	3,677,609	·25	100·00	

The weight loss was 116,416 bushels (3·166 per cent.). The administrative expenses amounted to £48,945 13s. 8d. equivalent to 3·194d. per bushel.

1935-36 *Season.*—Adverse seasonal conditions were experienced during the period of the crop's growth, the rainfall being very much below normal in most districts, while in some localities the crop was practically a total failure; consequently the yield in comparison with the previous season was considerably lower, the Board's intake up to date being 2,386,985 bushels.

The high standard of the wheat, however, and the resultant high classification, as well as a distinct improvement in world prices, have been to a certain extent compensating factors to those growers fortunate enough to have harvested a crop and delivered same to the Board. Only 1 per cent., approximately, of the intake was classified as feed, while 99 per cent. was suitable for disposal to the mills and was sold accordingly, after making reservations for seed wheat. Of this 99 per cent. of the entire crop classified as milling wheat, 79.5 per cent. was of Q1 standard.

Owing to the lighter crop and the evident necessity for the mills to obtain supplies from other States, satisfactory arrangements were arrived at whereby the millers undertook first to consume Queensland wheat, and as the period for delivery was thus considerably shortened, practically the whole of the available grain for milling purposes has been delivered, any balance remaining being held in reserve for the ensuing season's seeding purposes.

Negotiations were again successfully concluded with the Rural Credits Branch of the Commonwealth Bank of Australia in respect to the necessary crop finance, the Board having made to date three payments to growers by way of advances, the first amounting to 2s. per bushel with relative dockages according to quality, while the second and third were at the rates of 1s. and 6d. per bushel respectively on all grades, the total payments up to the present being 3s. 6d. per bushel for Q1 quality. The matter of making a further advance at an early date is receiving the Board's consideration.

1936-37 *Season's Prospects*.—The long spell of dry weather during recent months and until quite lately did not give rise to the expectation of even an average planting for the 1936-37 season, but rain of a general nature over the whole wheat area during the latter portion of this month has been sufficient for germination purposes and an extension of acreage in most districts. Naturally, further moisture will be required before a satisfactory crop yield is assured.

Although Queensland is not prominent as an exporter of wheat, the market value of the cereal here reacts in accordance with the price levels, and supplies of wheat held in the world's granaries.

There is no immediate shortage in the world's supply of wheat, but the total stock of wheat on hand throughout the world is much lower in volume than has been the case for many years past. Adverse weather conditions, couplied with a resultant diminished yield (half normal crop), have been reported in respect to several of the countries that usually contribute a considerable proportion of the world's supply of wheat.

In the case of some countries that under normal seasonal conditions are comparatively large exporters of wheat, the drought has been so severe that they may be carried over from exporters to importers of wheat.

To these and other minor influences is to be attributed the steady but rather marked increase that has been taking place in wheat values during recent months, and the indications are that relatively higher values are in prospect. Generally, the tone of the market and the price anticipations at present are decidedly in the growers' favour, and the possibility of a return to prices more satisfactory to growers during the next few years does not seem without justification.

GENERAL.

It is gratifying to pool boards, particularly boards that engage in the export trade in primary products, to know that the Premier (Hon. W. Forgan Smith, LL.D.), during his visits to Great Britain, had made opportunity for an examination of the conditions under which Queensland products are marketed overseas.

As a result of the survey of the marketing conditions that was made by the Honourable the Premier, pool boards have been furnished with valuable information and advice that will be of very material benefit and guidance to the marketing organisations concerned in the conduct of their functions.

The Premier ascertained that the quality of our products, particularly the produce that was up to the standard of our highest grade classification, and the manner in which the product had been prepared and presented for market, met with the general approval of those trading in the produce. The Premier was assured of and greatly impressed by the necessity for pool boards to give increased attention to the utilisation of British ports other than London. It is common knowledge that both on the eastern and western British coasts there is a number of first-class ports which serve large industrial and manufacturing centres of England and Scotland. These ports are used for the intake of the major portion of the foodstuffs required to meet the needs of a population several times greater than that of the Commonwealth. These cities and large towns provide potential avenues for trade in our products, but the trade is not to be captured without some initial effort on the part of the exporters. The fuller utilisation of these ports would be at least a gesture that would contribute towards the annexation of a fair proportion of the trade which, for the greater part, is being enjoyed at present by other countries that consign butter, cheese, eggs, and meat (principally pork) to Britain.

It is the case that the ports outside of London are being used to an increased extent each year, but it is highly desirable that the volume of the trade should be augmented considerably. The evidence is that we are producing products of the kind and quality suitable for the trade, and the consumers there are favourably disposed towards Australian produce, with a bias towards foodstuffs produced in Queensland.

As a result of the experience that has been gained by the application of the principle of collective marketing to primary products, it can confidently be claimed that the system of collective marketing has proved to be of very material benefit to the primary producers concerned. It has created a stability in marketing operations that otherwise would be lacking. Collective marketing has made possible the expansion of many of our agricultural industries, and generally orderly marketing has rendered it possible to mould a marketing programme, and in other ways assist the growers in a manner that could not have been achieved by individual effort. There are many instances where the volume of production in pre-pool days has, since the inception of pooling, been increased manifold.

There are, however, indications that, although pools have met with a very considerable degree of success, the value of pools has not yet been fully exploited. From the operations of pools over a number of years there emerges the desirability to arrange for the amalgamation of several of the existing pools under one board, and in this direction I commend to the consideration of growers the desirability of the formation of a cereal pool to be constituted under the Primary Producers' Organisation and Marketing Acts and which would function in respect to the marketing of cereals and seeds comprising wheat, canary seed, barley—for which commodities pools are already in existence—and later possibly be made to include maize and Setaria (known locally as panicum seed) grown in Southern Queensland.

These commodities have many features in common, and for the greater part they are produced in the same tract of country, and it is reasonable to surmise that the products would be controlled and marketed more economically by one board and a central organisation than is possible at present, when there are several pool boards operating. No doubt a strong case could be set up in favour of the amalgamation of these and possibly some other pools now functioning as independent entities. An amalgamation would not deprive any particular industry of its prestige, but would pave the way towards improvement in the efficient and economical functioning of the pools. The matter of the coalition of several of the pool boards is thought to be worthy of very careful consideration and, I think, the endorsement of growers. It is to be mentioned that provision exists under the Primary Producers' Organisation and Marketing Acts to enable the boards to effect amalgamation.

The principal factors in carrying the amalgamation into fruition would be the agreement of the growers to the advisability of such action, and the preparedness of the boards to appreciate that the amalgamation was necessary in the best interests of the industries concerned, and that these interests should be regarded as being of paramount importance, while the preservation of the identity of any particular board should be made a matter of secondary consideration.

E. GRAHAM,

Under Secretary for Agriculture and Stock
and Director of Marketing.

Report of the Government Statistician on Agricultural Production for the Year 1935.

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Tobacco—		
Area and Produce in Districts (Return for Five Years)	32	188
Area of, 1926–35	47	212
Area of, in each Division during the year 1935	41	194
Area of, in the several Petty Sessions Districts during the years 1931–35	32	188
(Cured Leaf), Average Produce per acre	50	215
(Cured Leaf) Produced, 1926–35	48	213
(Cured Leaf) Produced in each Division during the year 1935	44	203
(Cured Leaf), Yearly Value of, 1926–35	49	214
(Dried Leaf), Average Yield per acre of, in each Division of the State for the year 1935	51	216
Irrigated during 1935	13	178
Produce (Dried Leaf) of, in each Petty Sessions District during the years 1931–35	32	188
Tomatoes—		
Area of, in each Division during the year 1935	43	200
Produced in each Division during the year 1935	46	209
Yearly Value of, 1926–35	49	214
Total Extent of Land under Crop in each Division during the year 1935	43	200
Total Cheese Made, in the several Petty Sessions Districts, during 1935	3	172
Travelling Machinery, Value of for 1935	15	179
Turkeys, Number of on Farms in the Principal Districts	5	174
Turnips—		
Area of, in each Division during the year 1935	43	200
Produced in each Division during the year 1935	46	209
Value and Area of Principal Crops (Return for Two Years)	12	178
Value of—		
Each Distinctive Crop	52	217
Each of the Principal Crops for the year 1935	52	217
Principal Crops (Return for Ten Years)	49	214
Vines—		
Area and Produce in each Principal District (Return for Three Years)	33	188
Area of, 1926–35	47	212
(Bearing), Area of, in each Division during the year 1935	41	194
(Grapes Gathered) Produced in each Division during the year 1935	44	203
Not Bearing, Area of, in each Division during the year 1935	41	194
Produced, 1926–35	48	213
Water, Means Employed for Procurement and Utilisation of, during 1935	13	178
Watermelons—		
Area of, in each Division during the year 1935	42	197
Produced in each Division during the year 1935	45	206
Water Supply, Original Source of, for Petty Sessions Districts	13	178
Wax, Produced during 1935	6	175
Wheat—		
Area of, for Grain, in the several Petty Sessions Districts, during the years 1933, 1934, and 1935	19	181
Area of, in the several Petty Sessions Districts during the year 1935	41	194
Average Produce per acre, 1926–35	50	215
Average Yield per acre of, in the several Petty Sessions Districts, during the years 1933, 1934, and 1935	19	181
Average Yield per acre of, in each Division of the State, for the year 1935	51	216
Average Yearly Yield of, per acre	17	180
(Grain), Area of Land Under, 1926–35	47	212
(Grain), Area, Produce and Acreage for State (Return for Ten Years)	16	180
(Grain), Area, Produce, and Average Yield each District (Return for Three Years)	19	181
(Grain), Average Yield per acre Australia (Return for Ten Years)	17	180
(Grain) Produced in each Division during the year 1935	44	203
(Grain), Quantity of Wheat treated in Grain Mills in Queensland	18	180
(Green Forage), Area of, in each Division during 1935	41	194
(Hay), Area of, in each Division during the year 1935	41	194
(Hay) Produced in each Division during the year 1935	44	203
Produced, 1926–35	48	213
Produce of, in the several Petty Sessions Districts, during the years 1933, 1934, and 1935	19	181
Quantity of, treated by Workers during the years 1933–34 and 1934–35	18	180
Quantity of, treated during the years 1933–34 and 1934–35	18	180
Quantity of, treated in Flour Mills during the years 1933–34 and 1934–35	18	180

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Yearly Acreage Produce per acre of—Bushels, for Ten Years	17	180
Yearly Area of, for Grain	16	180
Yearly Increase—or Decrease on the Previous Year, of Area of	17	180
Yearly Increase—or Decrease on the Previous Year, of the Produce of	17	180
Yearly Increase—or Decrease on the Previous Year, of the Average Yield per acre of	17	180
Yearly Produce of, for Grain	17	180
Yearly Value of, 1926–35	49	214
Wine—		
Number of Makers of, in the Principal Districts during the year 1935, and the Total Figures for Five Years	34	189
Quantity and Number of Makers (Return for Five Years)	34	189
Quantity of, Made in the Principal Districts during the year 1935, and the Total Figures for Five Years	34	189
Quantity of Wine Spirit Distilled in the Principal Districts during the year 1935, and the Total Figures for Five Years	34	189
Yield of each of the Principal Crops for the year 1935	52	217

Report of the Government Statistician on Agricultural Production for the Year 1935.

DAIRYING.

Table No. 1.

RETURN SHOWING THE PROGRESS OF THE DAIRYING INDUSTRY SINCE THE YEAR 1909.

Year.	Dairying Establishments, Exclusive of Factories.	Dairy Cows.				Production of Butter.	Production of Cheese.
		In Milk.	Dry.	Heifers within three months of milking.	Total.		
						Lb.	Lb.
1890	..	..	..	..	..	*2,000,000	*170,240
1895	..	..	..	..	..	3,719,523	1,841,799
1900	..	..	..	..	..	8,680,389	1,984,705
1905	..	..	..	..	..	20,319,976	2,682,089
1909	15,279	228,497	105,342	..	333,839	..	..
1910	16,079	262,788	102,656	..	365,444	31,258,333	4,146,661
1911	16,225	237,997	119,098	..	357,095	27,858,535	3,718,257
1912	16,579	267,847	107,813	..	375,660	30,307,339	3,947,615
1913	17,866	285,403	106,036	..	391,439	35,199,387	5,395,050
1914	18,029	288,334	98,977	..	387,311	37,230,240	7,931,869
1915	17,876	218,511	116,732	..	335,243	25,456,714	4,383,410
1916	18,410	247,855	95,456	..	343,311	28,967,279	8,495,825
1917	19,404	303,133	96,375	..	399,508	38,930,690	11,142,114
1918	19,313	255,039	126,466	..	381,505	32,371,575	8,636,700
1919	18,952	211,331	161,815	..	373,146	26,213,514	8,296,318
1920	20,457	335,026	113,608	..	448,634	40,751,373	11,512,262
1921	21,695	423,251	130,957	..	554,208	60,923,194	15,200,527
1922	21,931	418,351	145,332	..	563,683	53,785,599	10,560,316
1923	22,019	357,203	155,326	..	512,529	40,659,634	7,221,355
1924	22,599	433,531	151,355	..	584,886	58,187,954	11,093,886
1925	22,581	463,436	147,900	..	611,426	70,748,646	14,242,721
1926	22,451	397,606	157,913	55,708	611,227	50,991,985	8,740,355
1927	22,547	436,337	139,970	69,009	645,316	62,552,917	12,233,520
1928	22,457	492,405	144,562	33,838	670,805	73,820,292	15,047,825
1929	22,763	507,100	142,477	31,000	680,577	77,483,845	13,229,337
1930	23,270	546,643	147,385	30,295	724,323	90,377,751	14,249,173
1931	24,016	590,656	152,668	31,977	775,301	100,565,158	12,261,457
1932	24,591	586,995	173,557	32,391	792,943	96,317,201	11,157,781
1933	25,363	673,544	164,978	38,887	877,409	114,032,603	13,941,728
1934	26,102	729,821	172,932	36,501	939,254	136,793,670	13,531,480
1935	26,618	732,002	186,764	36,980	955,746	119,124,711	10,018,738

Value of Dairying Production, 1934–35, £7,068,216.

* Estimated.

Table No. 2.

RETURN SHOWING CLASSIFICATION OF DAIRY ESTABLISHMENTS (NOT FACTORIES) ACCORDING TO NUMBER OF DAIRY COWS (INCLUDING HEIFERS INTENDED FOR MILKING).

District.	Under 5.	5 to 9.	10 to 14.	15 to 19.	20 to 29.	30 to 49.	50 to 99.	100 and Upwards.	Total.
Moreton	979	353	513	669	1,574	2,303	1,728	378	8,497
Wide Bay	679	349	196	250	788	1,938	2,138	425	6,763
Port Curtis	101	50	62	104	350	723	610	139	2,139
Edgecumbe	1,027	394	153	49	79	70	59	22	1,853
Rockingham	875	165	47	29	70	251	254	36	1,727
York Peninsula	60	8	1	1	3	4	18	3	98
Carpentaria	..	1	..	3	2	6	3	1	16
Central-Western	..	..	..	..	..	1	..	..	1
South-Western	1	2	2	1	1	7	2	..	16
Central	11	5	4	5	8	5	8	2	48
Maranoa	27	31	19	15	42	75	65	9	283
Downs	770	250	383	410	895	1,343	942	184	5,177
Total State	4,530	1,608	1,380	1,536	3,812	6,726	5,827	1,199	26,618

Table No. 3.

Return Showing the Results of the Dairying Industry in the Several Petty Sessions Districts of the State during the Year 1935.

District.	Total Milk Obtained.	How Utilised.							Establishments.			Dairy Cattle.			Average per Cow.	Butter Made.			Cheese Made.		
		For Butter on Farms.	For Cheese on Farms.	For Domestic Purposes by Producer.	Separated for Sale.	Sold for Consumption.	Sold to Condensed Milk Factories.	Sold to Cheese Factories.	Dairying.	Butter Factories.	Cheese Factories.	In Milk.	Dry.	Heifers.		At Factories.	By Farmers.	Total.	At Factories.	By Farmers.	Total.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	No.	No.	No.	No.	No.	No.	Gall.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.
Moreton Division.																					
Brisbane (North) ..	3,784,349	101,915	..	155,024	1,307,326	2,220,084	..	..	586	..	..	9,645	3,000	912	299	..	47,616	47,616	..	..	..
Brisbane (South) ..	1,404,992	43,571	..	53,855	441,360	866,206	..	..	197	..	..	3,428	1,162	231	306	..	12,893	12,893	..	..	..
Beaudesert	12,055,707	191,314	..	173,418	11,538,599	152,376	..	..	573	1	..	27,698	7,396	1,496	344	3,371,489	86,957	3,458,446	..	..	..
Caboolture	960,413	21,883	..	14,944	900,977	22,609	..	..	116	1	..	3,993	802	80	200	2,734,272	10,876	2,745,148	..	..	..
Cleveland	151,580	20,336	..	65,482	33,232	32,530	..	..	170	..	..	505	204	44	214	..	8,213	8,213	..	..	..
Crow's Nest	4,587,616	137,636	..	77,864	4,365,546	6,570	..	..	369	1	..	12,015	2,208	459	323	1,575,168	68,318	1,643,486	..	..	..
Dugandan	5,045,312	137,580	..	125,044	4,773,275	9,413	..	..	572	1	..	15,946	2,106	217	279	4,255,702	68,727	4,324,429	..	..	..
Esk	1,803,798	34,604	..	39,502	1,725,963	3,729	..	..	145	1	..	5,575	1,166	149	268	2,098,079	17,376	2,115,455	..	..	..
Gatton	2,883,853	117,694	..	119,338	2,626,531	19,270	..	1,020	461	2	..	9,791	1,928	1,006	246	2,708,687	59,070	2,767,757	1,076	..	1,076
Goodna	181,346	4,775	..	4,886	132,581	39,104	..	..	33	..	..	652	158	24	224	..	2,387	2,387	..	..	..
Harrisville	3,466,127	115,582	..	83,170	3,229,214	38,161	..	..	400	..	..	10,870	1,514	227	280	..	58,158	58,158	..	..	..
Ipswich	1,348,839	41,798	..	29,680	1,083,737	193,624	..	..	180	2	..	5,012	1,118	77	220	4,168,883	20,905	4,189,788	..	..	..
Kilcoy	2,112,450	55,571	..	35,499	2,015,380	6,000	..	..	146	..	..	7,979	1,623	315	222	..	27,786	27,786	..	..	..
Laidley	2,757,629	99,719	..	110,954	2,542,696	4,260	..	..	424	1	..	8,705	1,795	165	263	1,626,879	49,704	1,676,583	..	..	..
Logan	2,994,083	117,774	..	87,896	2,562,690	225,723	..	..	435	1	..	8,511	2,033	252	284	6,912,316	53,296	6,965,612	..	..	..
Lowood	2,158,811	61,414	..	71,630	2,003,154	3,866	18,747	..	291	1	..	6,944	899	271	275	524,386	31,087	555,473	..	..	..
Marburg	1,892,069	50,657	..	39,891	1,800,338	1,183	..	..	246	..	..	5,779	639	121	295	..	25,328	25,328	..	..	..
Maroochy	8,666,926	246,228	..	230,717	8,112,337	77,644	..	..	1,079	2	..	24,968	4,444	923	295	5,097,557	123,059	5,220,616	..	..	..
Redcliffe	3,549,084	64,928	..	85,161	1,444,778	1,954,217	..	..	334	1	..	11,366	3,174	2,775	244	415,221	29,947	445,168	..	..	..
Rosewood	2,778,798	84,689	..	66,880	2,504,448	122,781	..	..	331	..	..	9,666	1,451	418	250	..	42,344	42,344	..	..	..
Southport	(a) 8,648,563	136,719	..	99,229	8,153,986	258,629	..	..	458	..	..	21,427	4,742	1,360	330	..	70,007	70,007	..	..	..
Toogoolawah ..	3,257,794	87,265	..	74,563	3,079,296	16,670	..	..	292	..	..	11,711	2,574	1,261	228	..	42,851	42,851	..	..	..
Woodford	4,349,395	83,300	..	99,360	4,051,139	115,596	..	..	284	1	..	13,099	2,689	471	275	2,045,222	41,609	2,086,831	..	..	..
Wynnum	212,303	3,918	..	15,275	22,032	171,078	..	..	65	..	..	628	204	40	255	..	1,979	1,979	..	..	..
Oakey-Cooyar ..	1,544,303	57,345	..	34,472	1,452,061	425	..	..	123	..	..	4,824	945	123	268	..	28,673	28,673	..	..	..
Toowoomba-Helidon	2,007,954	57,727	..	46,246	1,900,536	3,445	..	..	187	..	..	4,873	856	1,353	350	..	28,862	28,862	..	..	..
Total Moreton ..	84,604,094	2,175,942	..	2,039,980	73,803,212	6,565,193	18,747	1,020	8,497	16	..	245,610	50,830	14,770	285	37,533,861	1,058,028	38,591,889	1,076	..	1,076
Wide Bay Division.																					
Biggenden	4,555,549	123,951	..	98,784	3,986,228	350	..	346,236	353	1	2	17,378	3,470	390	219	2,143,698	61,988	2,205,686	323,054	..	323,054
Bundaberg	3,761,957	271,523	..	186,180	3,222,181	82,073	..	..	787	1	..	10,972	4,460	624	244	1,674,279	136,864	1,811,143	..	..	..
Childers	450,806	22,220	..	42,564	386,022	..	..	..	166	..	..	1,348	544	253	238	..	11,110	11,110	..	..	..
Eidsvold	1,773,742	55,044	..	41,885	1,676,448	365	..	..	166	..	..	6,466	1,875	189	213	..	27,522	27,522	..	..	..
Gayndah	6,003,255	176,966	..	121,451	5,688,263	16,575	..	..	566	2	..	23,449	7,623	1,278	193	4,427,045	88,483	4,515,528	..	..	..
Gin Gin	2,127,878	117,502	..	52,389	1,933,256	24,731	..	..	272	..	..	4,567	1,777	310	335	..	47,423	47,423	..	..	..
Gympie	23,805,693	530,627	..	433,028	22,801,016	41,022	..	..	1,461	4	..	60,868	13,061	1,235	322	11,728,278	264,352	11,992,630	..	..	..
Kilkivan	1,286,316	40,100	..	26,558	1,219,658	..	..	..	121	..	..	5,128	1,195	265	203	..	19,827	19,827	..	..	..
Maryborough ..	2,824,677	149,210	..	92,769	2,379,799	202,899	..	..	476	1	..	7,704	3,004	741	264	1,101,734	73,479	1,175,213	..	..	..
Mount Perry ..	209,764	12,920	..	9,770	185,594	1,480	..	..	39	..	..	994	516	32	139	..	6,460	6,460	..	..	..
Nanango	12,434,216	223,194	..	219,813	11,974,756	16,453	..	..	910	2	..	33,429	8,822	1,176	294	6,464,217	111,197	6,575,414	..	..	..
Tiaro	3,352,730	101,584	..	52,224	3,198,922	..	..	..	313	..	..	13,668	3,379	1,300	197	..	49,365	49,365	..	..	..
Wienholt	18,089,886	299,662	..	270,852	17,485,361	34,011	..	..	1,133	3	..	46,776	10,991	843	313	8,162,395	147,765	8,310,160	..	..	..
Total Wide Bay ..	80,676,469	2,124,503	..	1,648,267	76,137,504	419,959	..	346,236	6,763	14	2	232,747	60,717	8,636	275	35,701,646	1,045,835	36,747,481	323,054	..	323,054
Port Curtis Division.																					
Banana	329,267	11,629	..	10,347	306,148	1,143	..	..	47	..	..	1,061	257	37	250	..	5,809	5,809	..	..	..
Gladstone	5,062,396	150,559	150	92,086	4,798,035	21,566	..	..	439	1	..	18,245	6,203	1,215	207	2,640,210	71,557	2,711,767	..	120	120
Monto	4,907,575	149,324	..	103,702	4,639,399	15,150	..	..	432	1	..	17,240	4,052	407	230	2,485,515	75,112	2,560,627	..	..	..
Mount Morgan ..	5,932,136	166,887	..	133,064	5,499,743	132,442	..	..	578	1	..	17,050	5,099	1,377	268	2,943,439	59,161	3,002,600	..	..	..
Rockhampton ..	4,812,941	254,361	..	153,069	3,866,212	539,299	..	..	629	2	..	19,034	6,749	1,519	187	1,659,371	125,447	1,784,818	..	..	..
St. Lawrence ..	21,148	14,157	..	3,675	991	2,325	..	..	14	..	..	154	108	57	81	..	4,116	4,116	..	..	..
Total Port Curtis	21,065,463	746,917	150	495,943	19,110,528	711,925	..	..	2,139	5	..	72,784	22,468	4,612	221	9,728,535	341,202	10,069,737	..	120	120
Edgecumbe Division.																					
Ayr	135,340	4,144	..	87,600	..	43,596	..	..	289	..	..	655	560	128	111	..	2,037	2,037	..	..	..
Bowen	79,113	27,816	..	25,855	1,600	23,842	..	..	105	..	..	444	507	52	83	..	9,142	9,142	..	..	..
Cape River	1,796	695	..	1,101	..	..	..	..	4	..	..	15	17	..	56	..	127	127	..	..	..
Charters Towers ..	84,122	1,795	..	3,667	..	78,660	..	..	24	..	..	296	302	73	141	..	521	521	..	..	..
Collinsville ..	25,949	..	..	12,269	..	13,680	..	..	6	..	..	46	16	2	419	..	..	..	..	..	..
Mackay	1,596,451	252,953	..	346,156	787,281	210,061	..	..	1,166	1	..	6,918	4,569	869	139	464,771	94,098	558,869	..	..	..
Proserpine	291,395	23,195	..	62,174	192,316	13,710	..	..	177	..	..	704	462	40	250	..	9,631	9,631	..	..	..
Ravenswood ..	1,173	..	..	250	..	923	..	..	2	..	..	7	11	13	65	..			..	..	..

Table No. 3 —*continued.*

RETURN SHOWING THE RESULTS OF THE DAIRYING INDUSTRY IN THE SEVERAL PETTY SESSIONS DISTRICTS OF THE STATE DURING THE YEAR 1935—*continued.*

District.	Total Milk Obtained.	HOW UTILISED.							ESTABLISHMENTS.			DAIRY CATTLE.			Average per Cow.	BUTTER MADE.			CHEESE MADE.		
		For Butter on Farms.	For Cheese on Farms.	For Domestic Purposes by Producer.	Separated for Sale.	Sold for Consumption.	Sold to Condensed Milk Factories.	Sold to Cheese Factories.	Dairying.	Butter Factories.	Cheese Factories.	In Milk.	Dry.	Heifers.		At Factories.	By Farmers.	Total.	At Factories.	By Farmers.	Total.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	No.	No.	No.	No.	No.	No.	Gall.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.
Rockingham Division.																					
Atherton	8,829,448	169,934	..	119,054	8,425,040	105,420	..	10,000	496	3	1	16,345	5,745	1,294	400	4,074,521	71,357	4,145,878	11,886	..	11,886
Cairns	325,653	5,620	..	101,082	6,000	212,951	..	..	307	..	..	1,407	797	159	148	..	1,831	1,831	..	..	..
Cardwell	42,374	556	..	22,333	1,820	17,665	..	..	121	..	..	270	162	156	98	..	306	306	..	..	..
Chillagoe	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Herberton	781,201	34,960	..	20,231	720,360	5,650	..	..	94	1	..	2,845	1,063	238	200	379,232	16,503	395,735	..	..	..
Ingham	137,022	9,630	..	79,402	36,400	11,590	..	..	229	1	..	791	922	50	80	4,867	3,482	8,349	..	..	..
Innisfail	308,283	3,902	..	124,989	68,214	111,178	..	..	406	1	..	1,243	968	266	139	21,945	935	22,880	..	..	..
Mareeba	335,329	5,430	..	23,380	292,809	13,710	..	..	74	..	..	978	685	108	202	..	1,552	1,552	..	..	..
Total Rockingham	10,759,310	230,032	..	490,471	9,550,643	478,164	..	10,000	1,727	6	1	23,879	10,342	2,271	314	4,480,565	95,966	4,576,531	11,886	..	11,886
York Peninsula Division.																					
Coen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cook	4,680	1,300	..	580	..	2,800	..	..	4	..	..	31	41	23	65	..	550	550	..	..	..
Douglas	378,785	6,356	..	24,625	344,804	3,000	..	..	92	1	..	1,054	609	208	228	172,415	2,967	175,382	..	..	..
Somerset	3,602	..	..	52	..	3,550	..	..	2	..	..	22	23	..	80	..	..	..	..	..	..
Total York Peninsula	387,067	7,656	..	25,257	344,804	9,350	..	..	98	1	..	1,107	673	231	217	172,415	3,517	175,932	..	..	..
Total Carpentaria ..	48,874	100	..	3,730	..	45,044	..	..	16	..	..	321	281	121	89	..	50	50	..	..	..
Total Central-Western	2,960	..	..	60	..	2,900	..	..	1	..	..	24	20	..	67	..	..	..	..	..	..
Total South-Western	33,147	2,550	..	7,285	1,500	21,812	..	..	16	..	..	210	208	90	79	..	670	670	..	..	..
Total Central ..	210,752	17,902	..	8,415	132,380	52,055	..	..	48	..	..	705	651	88	155	..	8,295	8,295	..	..	..
Maranoa Division.																					
Mitchell	24,076	1,040	..	350	22,096	90	..	..	5	..	..	109	59	5	143	..	506	506	..	..	..
Roma	2,087,907	75,864	..	73,855	1,920,673	17,515	..	..	261	1	..	6,084	2,752	249	236	787,849	37,463	825,312	..	..	..
Surat	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Yeulba	65,178	3,860	..	2,692	58,226	400	..	..	17	..	..	379	228	37	107	..	1,925	1,925	..	..	..
Total Maranoa ..	2,177,161	80,764	..	77,397	2,000,995	18,005	..	..	283	1	..	6,572	3,039	291	227	787,849	39,894	827,743	..	..	..
Downs Division.																					
Allora	3,189,761	58,580	..	88,719	2,885,515	5,000	..	151,947	298	1	..	6,090	1,046	60	447	1,393,048	28,583	1,421,631	..	..	..
Chinchilla	2,895,970	44,867	..	47,031	2,794,747	9,325	..	..	140	1	..	5,190	2,104	552	397	1,987,581	22,691	2,010,272	..	..	..
Clifton	4,855,026	141,839	..	113,016	3,730,533	8,941	..	860,697	498	1	4	9,762	1,689	286	424	1,683,506	69,839	1,753,345	646,578	..	646,578
Condamine	2,820,796	61,158	..	38,849	2,720,789	..	..	..	192	1	..	7,411	2,488	217	285	1,090,236	30,579	1,120,815	..	..	..
Dalby	10,872,527	198,517	..	138,172	9,877,355	26,843	..	631,140	578	1	3	28,105	6,818	1,052	311	4,454,722	90,121	4,544,843	421,481	..	421,481
Goondiwindi ..	207,049	9 990	..	7,494	162,625	26,940	..	..	25	1	1	396	297	5	299	144,072	5,005	149,077	60,201	..	60,201
Inglewood	2,459,087	38,803	..	35,061	2,218,403	7,620	..	159,200	135	..	1	4,667	1,350	66	409	..	19,154	19,154	178,483	..	178,483
Killarney	2,915,069	64,038	..	40,150	2,806,501	4,380	..	..	201	1	..	4,434	968	163	540	1,330,822	32,680	1,363,502	..	..	..
Oakey	14,325,072	247,822	..	197,473	11,049,357	9,127	..	2,821,293	826	2	19	30,021	5,005	1,041	409	6,569,209	124,113	6,693,322	3,684,610	..	3,684,610
Pittsworth	7,471,187	113,257	..	115,418	4,263,896	10,650	..	2,967,966	467	..	10	13,560	2,393	464	468	..	50,118	50,118	2,438,510	..	2,438,510
Stanthorpe	274,879	119,937	50	95,787	30,600	28,505	..	..	538	..	..	932	408	153	205	..	58,813	58,813	..	50	50
Texas	434,187	6,385	..	14,375	410,050	3,377	..	..	49	1	..	1,470	530	49	217	266,016	2,435	268,451	..	..	..
Toowoomba	6,420,849	180,471	..	151,103	4,434,385	343,168	..	1,311,722	619	1	12	14,103	2,549	323	386	5,219,740	90,240	5,309,980	1,846,288	..	1,846,288
Warwick	5,007,737	187,051	..	172,137	4,161,959	55,737	..	430,853	611	1	5	11,651	2,405	177	356	2,695,269	81,694	2,776,963	406,451	..	406,451
Total Downs ..	64,149,196	1,472,715	50	1,254,785	51,547,215	539,613	..	9,334,818	5,177	12	55	137,792	30,050	4,608	382	26,834,221	706,065	27,540,286	9,682,602	50	9,682,652
Grand Total, 1935	(a)266,589,384	7,184,749	200	6,605,079	233,611,828	9,476,707	18,747	9,692,074	26,618	56	58	732,602	186,764	36,980	290	115,703,863	3,420,848	119,124,711	10,018,618	170	10,018,788
Grand Total, 1934	(b)301,200,744	7,360,134	7,050	6,485,630	264,694,097	9,078,384	12,481	13,562,968	26,102	56	61	729,821	172,932	36,501	334	133,402,841	3,390,829	136,793,670	13,525,380	6,100	13,531,480
Increase, 1935 ..	..	..	..	119,449	..	398,323	6,266	..	516	..	..	2,181	13,832	479	..	..	30,019	..	..	..	..
Decrease, 1935 ..	34,611,360	175,385	6,850	..	31,082,269	..	..	3,870,894	..	..	3	..	..	..	44	17,698,978	..	17,668,959	3,506,762	5,930	3,512,692

(a) 520,860 gallons of this were sent from Moreton Division to New South Wales.

(b) 869,979 gallons of this were sent from Moreton Division to New South Wales.

Table No. 4.

BUTTER AND CHEESE.

RETURN SHOWING QUANTITY EXPORTED OVERSEA FOR FIVE YEARS (AUSTRALIAN PRODUCE ONLY).

Year.	BUTTER.			CHEESE.		
	Quantity Exported Oversea.	Value.	Value per lb.	Quantity Exported Oversea.	Value.	Value per lb.
	Lb.	£	s. d.	Lb.	£	s. d.
1930–31	67,582,918	3,326,099	0 11¾	7,790,222	213,731	0 6½
1931–32	72,307,146	3,385,342	0 11¼	4,461,896	117,481	0 6¼
1932–33	76,544,872	2,883,817	0 9½	6,527,007	151,462	0 5½
1933–34	98,084,492	3,259,804	0 8	6,635,988	145,834	0 5¼
1934–35	102,133,794	3,676,486	0 8¾	7,818,720	162,384	0 5

POULTRY

Table No. 5.

RETURN SHOWING THE NUMBERS OF POULTRY ON FARMS AND EGGS PRODUCED IN THE PRINCIPAL DISTRICTS OF THE STATE FOR THE YEAR 1935.

Petty Sessions District.	Fowls.	Ducks.	Geese.	Turkeys.	Other.	Eggs.	Total Poultry Sold or Killed for Food.		Value of Eggs Sold or Used.
	Number.	Number.	Number.	Number.	Number.	Dozen.	Number	£	£
Allora	10,423	21	..	..	..	40,892	2,359	160	2,053
Atherton	26,344	719	39	135	5	117,240	10,322	1,226	6,076
Ayr	11,016	664	58	363	28	35,134	268	31	2,485
Beaudesert	18,577	380	47	267	..	94,790	7,165	680	4,739
Biggenden	11,300	253	26	120	51	72,151	5,086	520	3,380
Brisbane (North)	119,169	1,846	3	19	..	1,230,496	105,249	6,248	55,696
Brisbane (South)	77,514	803	..	54	400	616,683	38,646	2,795	30,610
Bundaberg	21,966	792	16	16	3	114,568	4,749	560	6,786
Caboolture	18,295	21	5	2	..	146,498	6,304	466	7,753
Cairns	21,346	533	5	8	11	81,477	5,038	674	4,993
Charters Towers	2,766	45	..	20	..	16,079	2,473	369	1,005
Cleveland	21,617	128	..	82	200	191,342	8,159	1,068	8,434
Clifton	17,285	254	18	72	1	77,993	5,076	480	3,924
Condamine	5,464	16	37	169	22	29,963	1,144	140	1,472
Crow's Nest	14,357	129	10	..	..	61,564	6,317	635	3,028
Dalby	14,386	579	112	498	17	63,465	3,496	310	3,275
Dugandan	28,336	2,288	240	188	218	142,253	10,949	916	7,115
Eidsvold	4,041	186	53	125	11	24,755	1,268	133	1,184
Esk	6,262	385	90	62	9	30,145	2,422	199	1,466
Gatton	16,385	1,581	490	188	6	62,771	3,982	442	3,353
Gayndah	15,173	405	109	216	..	57,198	5,802	633	2,633
Gin Gin	6,068	307	9	17	..	30,252	1,214	125	1,508
Gladstone	13,503	467	60	330	44	65,880	2,915	323	3,275
Goodna	3,964	54	..	..	..	24,731	775	79	10,207
Gympie	32,969	2,477	109	287	258	136,878	6,507	634	7,855
Harrisville	18,738	510	95	51	6	116,771	5,419	490	5,534
Herberton	5,107	66	3	17	..	29,520	2,206	246	1,521
Ingham	16,487	906	6	39	12	68,220	4,056	693	4,554
Innisfail	16,105	602	15	57	65	59,637	7,664	1,026	3,973
Ipswich	12,296	231	32	53	..	76,215	4,497	288	3,186
Kilcoy	4,702	306	26	10	10	20,477	772	178	1,024
Killarney	8,539	125	7	131	1	54,997	1,731	143	2,454
Laidley	15,390	1,990	530	374	6	74,693	7,195	755	3,756
Logan	16,863	594	71	49	..	97,092	5,581	494	4,901
Lowood	11,791	1,766	287	154	4	38,448	4,540	433	1,996
Mackay	36,452	1,883	174	561	65	136,072	8,323	957	7,029
Marburg	12,077	1,184	101	10	..	55,004	3,853	371	2,750
Mareeba	5,719	111	..	149	5	23,831	2,189	287	1,027
Maroochy	47,046	737	34	102	40	328,218	20,595	2,856	16,925
Maryborough	11,840	256	8	201	..	58,581	3,761	405	2,960
Monto	8,123	146	6	357	23	34,590	1,752	243	1,742
Mount Morgan	13,065	289	23	442	39	52,723	1,067	122	3,181
Nanango	25,029	1,192	36	344	30	162,665	2,671	221	8,147
Oakey { Cooyar	5,025	209	128	58	16	29,941	2,039	187	1,433
Oakey	28,626	879	198	487	12	177,739	6,335	550	8,242
Pittsworth	12,957	140	17	215	..	66,755	2,720	298	2,810
Proserpine	6,931	437	24	..	18	25,495	205	28	1,821
Redcliffe	29,004	355	..	7	..	189,614	9,082	793	9,316
Rockhampton	29,788	364	26	368	23	158,602	12,411	1,182	8,233
Roma	6,699	50	12	269	25	17,847	1,097	120	862
Rosewood	18,816	365	48	95	..	93,628	5,410	551	5,377
Southport	17,604	1,168	119	183	5	86,554	8,143	1,032	4,755
Stanthorpe	10,683	158	43	52	..	64,408	3,038	246	3,269
Tiaro	6,568	153	38	114	12	25,145	526	56	1,118
Toogoolawah	9,862	544	102	40	3	38,463	2,431	307	1,867
Toowoomba { Helidon	5,128	109	9	6	..	16,393	1,628	220	821
Toow'mba	29,159	282	33	60	100	166,256	10,430	1,022	6,652
Townsville	8,425	183	6	70	201	54,946	4,744	453	3,352
Warwick	22,943	261	17	560	6	79,739	8,412	816	4,139
Wienholt	34,564	1,846	351	410	16	150,240	4,571	493	7,537
Woodford	6,592	758	57	207	20	24,819	2,695	262	1,143
Wynnum	30,134	1,116	..	..	1,000	284,206	27,564	1,710	14,215
All Other Districts	38,940	1,115	121	592	27	144,851	9,948	1,354	7,706
Totals, 1935	1,182,343	38,719	4,339	10,132	3,074	6,938,593	458,986	41,734	355,633
Totals, 1934	1,159,642	46,100	4,591	12,376	4,411	6,937,515	454,164	39,138	342,492
Increase, 1935	22,701	..	..	..	..	1,078	4,822	2,596	13,141
Decrease, 1935	..	7,381	252	2,244	1,337	..	..	..	..

APIARIES.

Table No. 6.

Return showing the Particulars of the Bee Industry for the Year 1935.

Petty Sessions District.	Number of Owners.	Number of Hives.		Honey.	Average per Productive Hive.	Wax.
		Productive.	Non-Productive.			
				Lb.	Lb.	Lb.
Allora	1	20	5	750	38	30
Banana	1	17	..	240	14	30
Beaudesert	3	..	28	..	..	..
Biggenden	16	115	53	5,451	47	40
Brisbane (North)	23	746	141	36,100	48	495
Brisbane (South)	5	20	10	392	20	9
Bundaberg	7	68	75	3,537	52	81
Caboolture	12	986	288	39,341	40	492
Charleville	6	..	8	..	..	..
Charters Towers	2	32	2	3,000	94	..
Clermont	1	5	3	300	60	..
Cleveland	13	392	234	9,771	25	87
Clifton	2	87	..	5,400	62	110
Condamine	3	..	8	..	..	..
Cook	4	134	2	10,364	77	300
Dalby	6	198	55	13,670	69	200
Douglas	2	25	7	350	14	..
Dugandan	20	289	59	17,633	61	313
Eidsvold	4	32	31	1,550	48	15
Esk	3	48	13	2,400	50	10
Gatton	5	86	28	1,171	14	20
Gayndah	4	192	2	6,460	34	100
Gin Gin	8	183	30	12,610	69	193
Gladstone	10	167	54	6,350	38	132
Goodna	3	14	40	1,550	111	8
Gympie	30	989	257	41,808	42	380
Harrisville	23	78	57	4,690	60	100
Herberton	5	220	..	3,960	18	100
Inglewood	4	185	42	9,140	49	88
Ipswich	1	14	..	420	30	4
Killarney	10	960	94	36,886	38	662
Laidley	11	238	36	7,685	32	148
Logan	35	573	181	15,106	26	668
Mackay	6	87	22	4,478	51	66
Marburg	17	51	29	990	19	..
Maroochy	45	376	166	11,087	29	63
Maryborough	48	1,310	378	48,638	37	863
Monto	1	..	2	..	..	..
Mount Morgan	2	6	1	160	27	..
Nanango	4	69	17	6,520	94	20
Oakey { Cooyar	14	10	25	300	30	12
{ Oakey	12	60	71	4,410	74	40
Redcliffe	18	334	145	9,101	27	63
Rockhampton	30	1,148	407	70,699	62	1,074
Roma	1	5	..	150	30	..
Rosewood	14	102	109	4,795	47	115
St. Lawrence	1	3	..	240	80	..
Southport	12	291	49	10,320	35	218
Stanthorpe	18	189	20	11,325	60	40
Texas	1	..	2	..	..	..
Tiaro	3	26	34	2,650	102	30
Toogoolawah	2	40	1	1,200	30	..
Toowoomba { Helidon	3	32	3	550	17	13
{ Toowoomba	8	84	32	1,010	12	88
Townsville	9	8	59	362	45	6
Warwick	18	469	121	26,576	57	478
Wienholt	13	28	34	1,014	36	22
Woodford	32	643	127	69,628	108	630
Wynnum	2	..	5	..	..	..
Yeulba	2	..	2	..	..	..
Totals, 1935	619	12,484	3,704	584,288	47	8,656
Totals, 1934	569	12,208	3,633	761,209	62	9,745
Increase, 1935	50	276	71	..	..	..
Decrease, 1935	..	..	..	176,921	15	1,089

Note.—Total value of honey and wax—1934, £12,458; 1935, £8,525.

HOLDINGS, CULTIVATION, ETC.

Table No. 7.

Return Showing Progress of Holdings and Area Cultivated.

Year.	Number of Holdings Returned. †	Increase per cent. on Previous Year.	Increase per cent. on Figures of 1904.	Area under Cultivation.	Increase per cent. on Previous Year.	Increase per cent on Figures for 1904.
1904	17,854	..	..	577,896	..	..
1926	32,051	—4·42	79·52	1,288,518	3·82	122·97
1927	30,414	—5·11	70·35	1,295,992	0·58	124·26
1928	30,586	0·57	71·31	1,268,475	—2·12	119·51
1929	30,701	0·38	71·95	1,269,242	0·06	119·63
1930	30,790	0·29	72·45	1,331,513	4·91	130·41
1931	31,450	2·14	76·15	1,401,932	5·29	142·59
1932	31,996	1·74	79·21	1,426,648	1·76	146·87
1933	32,041	0·14	79·46	1,499,996	5·14	159·56
1934	32,935	2·79	84·47	1,512,591	0·84	161·74
1935	33,738	2·44	88·97	1,574,166	4·07	172·40

The minus sign (—) implies a decrease

† Includes some dairying holdings without cultivation.

Table No. 8.

SHOWING CLASSIFICATION OF HOLDINGS, COMPRISING FREEHOLD LAND USED FOR AGRICULTURAL AND/OR DAIRYING PURPOSES, IN THE VARIOUS DIVISIONS OF QUEENSLAND.

Divisions.	1 and under 50.	50 and under 100.	100 and under 500.	500 and under 1,000.	1,000 and under 5,000.	5,000 and under 10,000.	10,000 and under 20,000.	20,000 and under 50,000.	50,000 and over.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Moreton	2,456	1,759	4,875	638	236	..	..	..	..	9,964
Wide Bay	789	841	4,459	780	345	5	5	..	..	7,224
Port Curtis	275	80	676	277	179	10	4	1	..	1,502
Edgecumbe	447	525	1,990	190	50	3	1	..	..	3,206
Rockingham	404	842	1,668	72	7	2	..	..	..	2,995
York Peninsula ..	42	63	121	10	2	..	..	..	..	238
Carpentaria	26	2	5	1	4	..	..	..	..	38
Central-Western ..	7	..	2	..	1	..	..	..	..	10
South-Western ..	27	2	3	2	1	1	..	..	..	36
Central	17	1	6	4	14	1	..	1	..	44
Maranoa	12	6	64	67	143	16	6	1	..	315
Downs	554	495	3,008	936	538	21	11	..	..	5,563
Total No. of Holdings	5,056	4,616	16,877	2,977	1,520	59	27	3	..	31,135
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres
Moreton	50,440	132,694	1,064,552	433,810	386,609	..	..	..	..	2,068,105
Wide Bay	20,748	64,216	1,054,328	536,114	511,646	29,723	62,859	..	..	2,279,634
Port Curtis	5,629	5,722	176,960	196,490	304,290	67,471	52,680	42,000	..	851,242
Edgecumbe	10,325	41,546	395,095	130,872	86,266	22,290	12,146	..	..	698,540
Rockingham	10,856	61,369	299,496	47,370	14,922	11,460	..	..	..	445,473
York Peninsula ..	1,199	4,982	24,682	6,329	2,504	..	..	..	..	39,696
Carpentaria	225	168	1,280	960	13,793	..	..	..	..	16,426
Central-Western ..	24	..	320	..	2,010	..	..	..	..	2,354
South-Western ..	143	169	555	1,684	1,600	5,535	..	..	..	9,686
Central	144	87	2,178	2,685	30,119	5,120	..	20,000	..	60,333
Maranoa	384	410	19,175	48,061	282,491	107,058	78,000	25,000	..	560,579
Downs	14,639	35,667	775,939	627,284	965,935	136,606	153,212	..	..	2,709,282
Total Area of Holdings	114,756	347,030	3,814,560	2,031,659	2,602,185	385,263	358,897	87,000	..	9,741,350

NOTE.—The above figures include only those holdings engaged in Agriculture and/or Dairying, purely Pastoral Holdings not being covered.

Table No. 9.

SHOWING CLASSIFICATION OF HOLDINGS, COMPRISING FREEHOLD, LEASED, AND CROWN LAND, USED FOR AGRICULTURAL AND/OR DAIRYING PURPOSES, IN THE VARIOUS DIVISIONS OF QUEENSLAND.

Divisions.	1 and under 50.	50 and under 100.	100 and under 500.	500 and under 1,000.	1,000 and under 5,000.	5,000 and under 10,000.	10,000 and under 20,000.	20,000 and under 50,000.	50,000 and over.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Moreton	2,519	1,762	4,882	656	254	..	..	..	..	10,073
Wide Bay	808	838	4,605	904	472	15	6	1	..	7,649
Port Curtis	378	117	1,190	591	479	27	13	6	1	2,802
Edgecumbe	479	538	2,046	208	64	3	1	..	..	3,339
Rockingham	412	870	1,826	81	11	2	..	..	..	3,202
York Peninsula ..	40	66	126	10	4	..	1	..	..	247
Carpentaria	30	2	5	1	4	1	..	..	1	44
Central-Western ..	7	..	2	..	1	..	..	..	..	10
South-Western ..	33	2	4	1	2	1	..	..	2	45
Central	26	2	11	10	31	1	2	1	..	84
Maranoa	11	7	50	59	187	28	7	2	..	351
Downs	566	510	3,019	1,066	675	36	20	..	..	5,892
Total No. of Holdings	5,309	4,714	17,766	3,587	2,184	114	50	10	4	33,738
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Moreton	51,191	133,057	1,068,089	446,385	419,948	..	..	..	..	2,118,670
Wide Bay	21,088	67,610	1,109,185	630,602	748,727	102,897	77,208	25,000	..	2,782,317
Port Curtis	7,990	8,517	336,259	414,486	861,056	183,154	174,497	180,967	59,550	2,226,476
Edgecumbe	10,992	44,786	410,360	144,089	121,275	22,290	12,146	..	..	765,938
Rockingham	11,096	63,498	329,332	53,326	23,686	11,460	..	..	..	492,398
York Peninsula ..	1,173	5,187	25,466	6,348	7,335	..	13,970	..	..	59,479
Carpentaria	236	168	1,280	960	14,433	6,400	..	..	179,840	203,317
Central-Western ..	24	..	320	..	2,010	..	..	..	..	2,354
South-Western ..	180	169	725	700	3,212	5,535	..	..	1,458,000	1,468,521
Central	230	167	3,550	6,728	81,429	5,120	30,289	20,000	..	147,513
Maranoa	371	483	15,616	42,022	396,413	194,943	88,400	48,000	..	786,248
Downs	15,042	36,623	781,219	717,179	1,221,823	234,125	276,222	..	..	3,282,233
Total Area of Holdings	119,613	360,265	4,081,401	2,462,825	3,901,347	765,924	672,732	273,967	1,697,390	14,335,464

NOTE.—The above figures include only those holdings engaged in Agriculture and/or Dairying, purely Pastoral Holdings not being covered.

Table No. 10.

RETURN SHOWING NUMBER OF FARMS GROUPED ACCORDING TO AREA UNDER CULTIVATION FOR THE YEAR 1934.

(*Note.—This Classification was not taken out for 1935.*)

Petty Sessions District.	Under 5 Acres.		5 and under 20 Acres.		20 and under 50 Acres.		50 Acres and Over.		Totals.	
	No. of Farms.	Acres.	No. of Farms.	Acres.	No. of Farms.	Acres.	No. of Farms.	Acres.	No. of Farms.	Acres.
Allora	1	2	4	64	15	505	298	47,612	318	48,183
Atherton	38	95	91	981	70	2,275	160	15,375	359	18,726
Ayr	6	20	35	411	161	5,919	429	35,972	631	42,322
Banana	3	10	13	144	25	783	33	3,280	74	4,217
Beaudesert	33	96	227	2,606	234	6,930	71	4,794	565	14,426
Biggenden	44	117	144	1,471	85	2,370	11	691	284	4,649
Bowen	17	53	140	1,692	53	1,568	9	568	219	3,881
Brisbane (North)	187	466	407	4,296	66	1,727	2	238	662	6,727
Brisbane (South)	95	220	116	1,206	15	433	3	180	229	2,039
Bundaberg	73	203	313	3,739	478	14,961	148	18,266	1,012	37,169
Caboolture	78	216	104	830	13	404	..	..	195	1,450
Cairns	23	58	87	1,070	190	6,496	350	35,050	650	42,674
Cardwell	15	46	34	393	104	4,031	115	7,786	268	12,256
Childers	9	26	40	489	64	2,274	113	13,062	226	15,851
Chinchilla	10	26	30	315	33	978	28	2,369	101	3,688
Cleveland	49	154	243	2,530	21	542	..	..	313	3,226
Clifton	2	7	7	99	16	610	514	97,894	539	98,610
Condamine	5	13	32	354	32	939	32	3,765	101	5,071
Crow's Nest	2	4	57	725	155	5,254	167	14,730	381	20,713
Dalby	2	6	57	630	117	3,830	252	37,548	428	42,014
Douglas	4	15	39	500	76	2,659	78	7,502	197	10,676
Dugandan	12	32	88	1,105	321	10,980	39	9,606	560	21,723
Eidsvold	6	15	42	467	63	2,110	47	4,025	158	6,617
Esk	10	28	45	558	48	1,545	30	2,174	133	4,305
Gatton	1	2	54	749	237	8,056	191	14,296	483	23,103
Gayndah	25	62	135	1,615	226	7,590	147	12,530	533	21,797
Gin Gin	20	44	67	847	106	3,551	96	7,716	289	12,158
Gladstone	99	253	193	1,963	48	1,357	13	997	353	4,570
Goodna	5	14	20	206	3	78	1	156	29	454
Gympie	441	1,076	534	5,197	128	3,613	17	1,105	1,120	10,991
Harrisville	6	17	57	782	208	7,138	121	9,530	392	17,467
Ingham	7	19	62	736	133	4,503	301	27,160	503	32,418
Inglewood	..	..	12	157	36	1,267	69	8,016	117	9,440
Innisfail	1	1	24	334	253	9,114	341	27,495	619	36,944
Ipswich	14	34	71	828	58	1,593	22	1,495	165	3,950
Kilcoy	20	57	60	640	61	1,894	13	1,022	154	3,613
Killarney	7	19	17	172	39	1,328	138	17,966	201	19,485
Laidley	3	8	37	496	195	6,859	203	15,333	438	22,696
Logan	57	165	313	3,699	79	1,958	2	168	451	5,990
Lowood	..	..	10	154	178	5,956	109	7,443	297	13,553
Mackay	45	130	172	2,149	622	21,779	879	81,748	1,718	105,806
Marburg	3	10	38	493	153	5,389	45	2,910	239	8,802
Mareeba	63	179	155	1,486	32	930	3	159	253	2,754
Maroochy	250	900	698	6,629	136	3,750	15	900	1,099	12,179
Maryborough	65	196	277	3,148	148	4,137	18	1,110	508	8,591
Mitchell	..	..	2	17	4	117	18	2,033	24	2,167
Monto	13	40	98	1,115	167	5,496	151	13,189	429	19,840
Mount Morgan	28	76	236	2,662	365	11,635	362	37,612	991	51,985
Nanango	18	54	106	1,259	247	8,516	457	44,606	828	54,435
Oakey { Cooyar	4	10	15	175	51	1,617	53	3,786	123	5,588
Oakey { Oakey	10	32	30	375	143	4,985	624	104,017	807	109,409
Pittsworth	..	..	9	111	46	1,593	478	106,976	533	108,680
Proserpine	2	7	68	881	182	5,978	114	8,980	366	15,846
Redcliffe	55	162	181	2,024	51	1,388	3	178	290	3,752
Rockhampton	200	502	311	3,166	107	3,025	22	1,750	640	8,443
Roma	13	34	41	492	52	1,716	138	24,889	244	27,131
Rosewood	5	16	56	749	184	5,914	90	6,197	335	12,876
Southport	149	375	253	2,426	59	1,684	9	655	470	5,140
Stanthorpe	37	121	456	5,525	264	7,109	16	1,199	773	13,954
Texas	5	17	27	315	18	605	13	1,345	63	2,282
Tiaro	56	138	127	1,383	77	2,300	15	1,047	275	4,868
Toogoolawah	8	21	57	683	124	4,305	93	7,772	282	12,781
Toowoomba { Helidon	2	8	25	350	135	4,506	31	2,075	193	6,939
Toowoomba { Toowoomba	34	93	123	1,425	145	4,708	366	50,197	668	56,423
Warwick	9	31	64	758	102	3,415	450	67,784	625	71,988
Wienholt	13	37	132	1,658	425	14,587	500	42,328	1,070	58,610
Woodford	69	162	127	1,255	30	799	2	116	228	2,332
Wynnum	20	40	49	561	8	217	..	..	77	818
All Other Districts	193	470	235	2,263	84	2,394	33	3,203	545	8,330
Total	2,799	7,560	8,229	90,783	8,604	280,572	9,811	1,133,676	29,443	1,512,591

Table No. 11.

RETURN SHOWING LAND TREATED FOR CULTIVATION, ETC., FOR THE YEARS 1934 AND 1935.

—	1934.	1935.
	Acres.	Acres.
Under crop	1,296,619	1,334,690
In fallow	72,089	83,735
Previously cropped but not during 1934 and 1935 respectively	143,883	155,741
Under cultivation	1,512,591	1,574,166
Under permanent artificially sown grasses	869,777	822,143
New ground cleared during the year but not ploughed	4,643	5,737
Grand total	2,387,011	2,402,046

Table No. 12.

RETURN SHOWING THE ACREAGE AND VALUE OF AGRICULTURAL CROPS FOR THE YEARS 1934 AND 1935.

—	1934		1935.	
	Acres.	Value.	Acres.	Value.
		£		£
Grain crops	396,581	1,379,186	410,365	1,309,356
Green forage	338,312	676,624	379,651	810,650
Hay and straw	86,477	615,985	71,309	609,271
Root crops	15,726	245,444	18,520	314,051
Sugar-cane	303,926	6,934,764	314,700	7,073,049
Fruit (including Vines)	32,761	949,195	31,163	947,182
All other	122,836	1,104,608	108,982	1,316,606
Total	1,296,619	11,905,806	1,334,690	12,380,165

Table No. 13

RETURN SHOWING THE AREA IRRIGATED AND THE PRINCIPAL CROPS TREATED DURING THE YEAR 1935

Petty Sessions. District.	Number of Irrigators.	Acres. Irrigated	PRINCIPAL CROPS IRRIGATED.						Original Source of Water Supply.	Means Employed for Procurement and Utilisation.
			Sugar-cane.	Fruit and Vegetables.	Cotton.	Tobacco.	Green Fodder.	Grain.		
			Acres.	Acres.	Acres.	Acres.	Acres.	Acres.		
Ayr	558	24,233	24,226	..	..	7	..	..	Spears and wells ..	Drains and fluming
Banana	33	1,160	..	..	1,160	..	..	..	River	Steam, gravitation, and canal
Bowen	130	1,184	..	1,182	..	..	..	2	Wells	Windmill, engine, drains, and fluming
Brisbane (North)	46	249	..	229	..	..	20	..	Springs, well, dam, lagoon, creek, and town supply.	Oil, petrol, and gas engines, electric pump, flooding, spray, drains
Brisbane (South)	52	204	..	202	..	..	2	..	Well and bore ..	Oil and petrol engines, pipes
Bundaberg ..	26	10,799	10,773	3	..	..	23	..	Wells and river ..	Oil and gas engines, flooding, pipes, spray
Cape River ..	8	48	..	48	..	..	..	..	River and wells ..	Oil engines, windmills, pipes, and trenches
Charters Towers	34	145	..	104	..	6	25	10	Wells	Oil engines, windmills, and pipes
Cleveland ..	148	771	..	771	..	..	..	..	Creek and well ..	Oil engine and pipes
Dugandan ..	41	282	..	279	..	..	3	..	Creek	Oil engine and spray
Emerald	3	31	..	31	..	..	..	..	River and well ..	Gravitation and pipes
Gatton	53	668	..	596	..	..	55	17	Creek and well ..	Oil, gas, electric engines, tractor, sprays, flooding, furrows
Gayndah ...	14	152	..	138	..	..	..	14	River and creek ..	Oil engine, tractor, spray, pipes
Gladstone ..	12	148	..	118	..	12	18	..	Creek and wells ..	Steam, pipes, spray, flooding
Goondiwindi ..	4	62	..	62	..	..	..	..	Well and river ..	Oil and petrol engine, spray, and drains
Harrisville ..	19	298	..	268	..	..	30	..	Creek	Oil engine and spray
Herberton ..	12	26	..	24	..	2	..	..	Well, creek, and river	Oil engine, windmill, pipes, and fluming
Hughenden ..	3	36	..	36	..	..	..	..	Wells	Oil engine, windmill, pipes, and drains
Ingham	2	85	85	..	..	..	..	..	River	Oil engine, drains
Inglewood ..	10	274	..	..	..	255	19	..	Well and river ..	Oil and petrol engine, drains
Ipswich	3	26	..	7	..	..	19	..	River	Oil engine and pipes
Killarney ..	7	27	..	27	..	..	..	..	River	Oil and electric engine, drains, spray, trenches, and channels
Laidley	17	234	..	179	..	..	55	..	Creek	Oil engine and spray
Logan	17	101	..	101	..	..	..	..	Well, creek, and dam	Oil and petrol engine and sprays
Lowood	3	52	..	52	..	..	..	..	Creek	Oil engine, spray, and pipes
Mackay	12	313	306	7	..	..	..	..	Creeks	Oil engines, pipes, and fluming
Mareeba	73	345	..	..	..	345	..	..	River and creek ..	Oil engine and pipes
Maroochy ..	5	29	..	29	..	..	..	..	Dam and creek ..	Oil engine and spray
Mount Morgan ...	9	43	..	43	..	..	..	..	Well	Spray
Proserpine ..	4	198	198	..	..	..	..	..	River and bore ..	Flooded
Rockhampton ..	88	572	..	427	..	..	145	..	Creek and well ..	Oil engine, pipes, spray, flooding
Stanthorpe ..	9	97	..	42	..	35	20	..	River and creek ..	Oil engine, pipes, spray
Texas	22	454	..	57	..	337	60	..	River	Oil engine and flooding
Toowoomba ..	54	150	..	81	..	..	69	..	Wells and bore ..	Windmill and pipes
Townsville ..	26	259	39	212	..	..	..	8	Creek and wells ..	Oil engine, pipes, drains, and flooding
Wynnum ..	15	58	..	58	..	..	..	..	Well and creek ..	Oil engine, pipes, and spray
All Other Districts	94	470	132	278	..	6	50	4	Various	Various
Total State ..	1,666	44,283	35,759	5,691	1,160	1,005	613	55		

Table No. 14.

IRRIGATION.—RETURN FOR 10 YEARS.

Year.	Acres Irrigated.	Year.	Acres Irrigated,
1926	24,250	1931	28,414
1927	21,411	1932	31,409
1928	25,344	1933	29,363
1929	26,282	1934	34,138
1930	26,947	1935	44,283

Table No. 15.

RETURN SHOWING LABOUR EMPLOYED, INCLUDING OWNERS OR OCCUPIERS WORKING ON HOLDINGS, AND THE CAPITAL INVESTED IN FARMING MACHINERY, ETC., FOR THE YEAR 1935.

PETTY SESSIONS DISTRICT.	LABOUR.				VALUE OF MACHINERY AND IMPLEMENTS.				
	Farming Principally.		Dairying Principally.		Farming.	Dairying.	Irrigation.	Travelling Machinery.	Total.
	Males.	Females.	Males.	Females.	£	£	£	£	£
Allora	601	41	544	261	137,739	11,618	369	300	150,026
Atherton	521	21	783	450	53,423	32,671	890	1,200	88,184
Ayr	1,697	6	14	2	247,293	455	473,228	59,634	780,610
Beaudesert	689	84	810	569	52,290	51,874	150	986	105,300
Biggenden	26	3	645	442	18,447	28,163	70	2,746	49,426
Bowen	355	55	18	5	27,970	928	23,436	..	52,334
Brisbane (North)	888	59	763	306	28,789	13,502	5,477	6,498	54,266
Brisbane (South)	222	39	337	136	9,358	6,170	8,085	952	24,565
Bundaberg	1,744	12	340	318	147,813	17,270	72,007	20,545	257,635
Caboolture	222	5	168	68	6,543	5,000	200	104	11,847
Cairns	1,863	21	57	9	207,436	890	1,790	80,582	290,698
Cardwell	754	..	8	1	72,030	159	60	17,117	89,366
Childers	487	19	30	33	28,637	2,476	100	3,655	34,868
Chinchilla	57	5	232	164	8,691	13,911	..	490	23,092
Cleveland	521	28	53	29	20,387	1,390	30,510	..	52,287
Clifton	681	13	521	403	233,374	21,978	400	8,405	264,157
Condamine	36	19	305	196	5,655	11,708	57	872	18,292
Crow's Nest	625	39	580	371	32,321	26,431	145	33	58,930
Dalby	465	61	1,061	516	119,401	66,530	210	5,093	191,234
Douglas	366	2	49	14	65,626	1,618	..	3,582	70,826
Dugandan	946	104	766	601	74,597	22,321	4,767	1,410	103,095
Eidsvold	87	..	237	51	12,206	15,828	530	..	28,564
Esk	231	54	241	170	14,124	7,379	97	605	22,205
Gatton	641	4	475	406	65,336	12,277	9,862	5,713	93,188
Gayndah	822	14	987	517	55,437	39,339	2,963	4,955	102,694
Gin Gin	406	2	174	175	42,094	6,004	200	5,990	54,288
Gladstone	264	30	700	399	21,449	27,206	2,620	1,070	52,345
Gympie	1,951	16	2,487	1,752	42,776	74,437	1,290	4,339	122,842
Harrisville	545	22	542	425	59,895	15,075	3,681	3,092	81,743
Ingham	1,390	9	12	1	228,006	354	280	..	228,640
Inglewood	93	12	215	140	16,762	7,748	3,319	1,740	29,569
Innisfail	1,542	11	26	4	390,055	2,321	500	1,565	394,441
Ipswich	202	5	178	190	11,129	4,743	1,080	590	17,542
Kilcoy	135	9	172	168	11,249	7,599	50	100	18,998
Kilkivan	53	..	226	129	8,892	8,440	..	819	18,151
Killarney	407	10	369	109	59,525	10,974	750	1,241	72,490
Laidley	759	121	553	507	73,234	11,362	3,337	..	87,933
Logan	607	39	409	377	23,094	9,842	3,702	1,308	37,946
Lowood	471	6	16	371	42,203	10,141	1,080	..	53,424
Mackay	3,704	235	175	83	430,323	9,229	17,755	70,871	528,178
Marburg	239	1	135	254	17,276	6,103	..	..	23,379
Mareeba	527	67	56	37	17,062	1,544	9,116	350	28,072
Maroochy	1,719	49	1,075	599	54,193	34,177	965	7,513	96,848
Maryborough	749	42	448	276	35,899	8,316	150	9,051	53,416
Monto	708	15	694	359	37,561	25,870	220	3,680	67,331
Mount Morgan	1,176	181	784	495	57,629	24,353	8,392	9,089	99,463
Nanango	1,213	24	1,321	995	133,952	81,343	172	4,383	219,850
Oakey { Cooyar	107	1	146	102	8,719	8,919	..	..	17,638
Oakey { Oakey	1,101	25	1,227	980	254,672	70,488	..	4,385	329,545
Pittsworth	574	7	608	401	240,640	36,636	..	950	278,226
Proserpine	672	1	10	5	75,645	1,860	995	25,337	103,837
Redcliffe	421	34	513	345	17,388	13,699	..	1,175	32,262
Rockhampton	709	52	774	516	35,906	25,958	12,543	8,492	82,899
Roma	378	73	245	146	44,899	10,468	310	2,113	57,790
Rosewood	374	6	446	434	31,096	10,773	370	1,700	43,939
Southport	652	105	879	513	20,599	27,746	1,375	4,463	54,183
Stanthorpe	1,095	94	18	7	55,460	204	1,985	715	58,364
Texas	82	3	83	16	3,533	2,574	5,655	745	12,507
Tiaro	248	..	524	356	25,654	18,364	50	80	44,148
Toogoolawah	358	4	257	334	30,389	17,667	235	482	48,773
Toowoomba { Helidon	337	..	332	223	9,606	7,674	20	817	18,117
Toowoomba { Toowoomba	753	35	816	520	103,907	36,612	6 237	13,428	160,184
Townsville	160	15	109	34	7,489	1,692	1,927	1,220	12,328
Warwick	1,028	94	859	545	150,960	23,607	366	14,840	189,773
Wienholt	1,659	50	1,799	1,127	178,226	85,633	400	6,962	271,221
Woodford	286	..	529	300	6,795	19,207	190	7,321	33,513
Wynnum	77	17	100	53	3,721	1,184	2,190	250	7,345
All Other Districts	400	55	392	240	27,288	10,425	11,138	2,622	51,473
Totals, 1935	45,878	2,285	31,457	21,080	4,891,773	1,230,457	740,048	450,365	7,312,643
Totals, 1934	47,242	2,155	32,132	20,493	4,055,385	1,165,178	665,149	1,084,648	6,970,360
Increase, 1935	..	130	..	587	836,388	65,279	74,899	..	342,283
Decrease, 1935	1,364	..	675	..	..	..	..	634,283	..

Table No. 16.

WHEAT (GRAIN).

Return for Ten Years Showing the Area and Produce of Wheat for Grain.

Year.	Area.	Produce.	Average per Acre.	Increase or — Decrease on the Previous Year.		
				Area.	Produce	Average per Acre.
	Acres.	Bushels.	Bushels.	Acres.	Bushels.	Bushels.
1926	57,084	379,339	6·65	—108,915	—1,594,138	— 5·24
1927	215,073	3,783,584	17·59	157,989	3,404,245	10·94
1928	218,069	2,515,561	11·54	2,996	—1,268,023	— 6·05
1929	204,116	4,235,172	20·75	— 13,953	1,719,611	9·21
1930	272,316	5,107,561	18·76	68,200	872,389	— 1·99
1931	248,783	3,863,894	15·53	— 23,533	—1,243,667	— 3·23
1932	250,049	2,493,902	9·97	1,306	—1,369,992	— 5·56
1933	232,053	4,361,614	18·80	— 17,996	1,867,712	8·83
1934	221,729	4,076,181	18·38	— 10,324	— 285,433	— 0·42
1935	239,631	2,690,316	11·23	17,902	—1,385,865	— 7·15
Average of Ten Years ..	215,890	3,350,712	15·52	..	..	..

Table No. 17.

WHEAT.

Return for Ten Years Showing Average Yield per Acre in Each State.

States.	Average Produce per Acre—Bushels.										
	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	Mean for 10 Years ending 1935.
Queensland	6·65	17·59	11·54	20·75	18·76	15·53	9·97	18·80	18·38	11·23	14·92
New South Wales	14·13	8·92	12·04	8·66	12·83	14·92	16·42	12·45	12·50	12·52	12·54
Victoria	16·08	8·54	12·59	7·13	11·70	11·77	14·81	13·96	10·51	16·16	12·33
South Australia	12·84	8·18	7·79	6·40	8·34	11·81	10·43	9·26	8·61	10·58	9·42
Western Australia	11·68	12·13	10·10	10·95	13·53	13·14	12·33	11·72	9·76	9·17	11·45
Tasmania	23·15	26·25	20·17	22·37	20·49	15·61	20·64	23·27	18·46	20·00	21·04

Table No. 18.

Return Showing the Quantity of Wheat Treated in Queensland during the Years 1933-34 and 1934–35.

Year.	Flour Mills.	Workers.	Sets of Rollers.	Wheat Treated.	Flour Made.		Meal Made.		Bran and Pollard.	
					Tons.	Value.	Tons.	Value.	Bushels.	Value.
	No.	No.	Sets.	Bushels.		£		£		£
1934–35	10	367	166	4,250,016	86,246	788,972	2,768	25,229	3,758,969	205,921
1933–34	10	359	163	4,039,643	84,159	734,470	2,011	17,589	3,509,603	178,676

Table No. 19.

WHEAT.

RETURN FOR THREE YEARS SHOWING THE AREA AND PRODUCE OF WHEAT FOR GRAIN IN THE SEVERAL PETTY SESSIONS DISTRICTS OF THE STATE.

Divisions and Petty Sessions Districts.	1933.			1934.			1935.		
	Area.	Produce.	Average per Acre.	Area.	Produce.	Average per Acre.	Area.	Produce.	Average per Acre.
	Acres.	Bushels.	Bushels.	Acres.	Bushels.	Bushels.	Acres.	Bushles.	Bushels.
MORETON.									
Crow's Nest	209	3,491	16·70	232	3,479	15·00	204	3,228	15·82
Dugandan	25	150	6·00	26	216	8·31	14	188	13·43
Gatton	50	414	8·28	60	1,440	24·00	53	378	7·13
Harrisville	..	..	..	..	..	..	120	1,893	15·78
Laidley	..	..	..	27	360	13·33	27	363	13·44
Southport	..	..	..	4	60	15·00	..	..	..
Oakey-Cooyar	41	582	14·20	49	774	15·80	104	723	6·95
Total, Moreton	325	4,637	14·27	398	6,329	15·90	522	6,773	12·98
WIDE BAY.									
Gayndah	35	100	2·86	107	410	3·83	..	..	..
Gympie	7	60	8·57	..	..	..	..	..	..
Nanango	194	1,847	9·52	146	2,003	13·72	187	2,637	14·10
Wienholt	152	2,396	15·76	369	4,035	10·93	182	1,563	8·59
Total, Wide Bay	388	4,403	11·35	622	6,448	10·37	369	4,200	11·38
PORT CURTIS.									
Banana	240	3,720	15·50	325	3,650	11·23	578	7,954	13·76
Mount Morgan	340	6,210	18·26	340	2,388	7·02	360	5,844	16·23
Rockhampton	2	35	17·50	..	..	..	..	..	..
Total, Port Curtis	582	9,965	17·12	665	6,038	9·08	938	13,798	14·71
EDGECUMBE.									
Townsville	..	..	..	1	20	20·00	..	..	..
MARANOA.									
Mitchell	1,280	22,154	17·31	2,039	10,771	5·28	1,704	6,744	3·96
Roma	18,685	386,147	20·67	17,104	179,066	10·47	20,668	160,877	7·78
Total, Maranoa	19,965	408,301	20·45	19,143	189,837	9·92	22,372	167,621	7·49
DOWNS.									
Allora	21,891	423,027	19·32	20,133	407,086	20·22	18,799	218,390	11·62
Chinchilla	181	2,900	16·02	193	2,780	14·40	19	341	17·95
Clifton	36,671	698,712	19·05	34,043	618,769	18·80	31,763	274,351	8·64
Condamine	764	13,076	17·12	587	8,980	15·30	877	7,194	8·20
Dalby	12,484	244,713	19·60	14,941	278,541	18·64	19,330	287,815	14·89
Goondiwindi	136	1,848	13·59	70	690	9·86	26	396	15·23
Inglewood	1,911	19,264	10·08	1,318	24,592	18·66	883	4,752	5·38
Killarney	6,250	105,980	16·96	5,848	109,473	18·72	6,891	92,732	13·46
Oakey	41,733	790,758	18·95	38,235	784,398	20·52	46,097	698,949	15·16
Pittsworth	56,949	1,007,784	17·70	56,233	1,054,941	18·76	65,470	625,198	9·55
Texas	261	6,909	26·47	261	1,916	7·34	210	3,379	11·33
Toowoomba	9,297	185,317	19·93	10,713	208,637	19·48	8,422	102,923	12·22
Warwick	22,265	434,020	19·49	18,325	366,706	20·01	16,643	182,504	10·97
Total, Downs	210,793	3,934,308	18·66	200,900	3,867,509	19·25	215,430	2,497,924	11·60
Total, State	*232,053	4,361,614	18·80	†221,729	4,076,181	18·38	‡239,631	2,690,316	11·23

* Including 16,539 acres which failed to bear a crop.

† Including 21,563 acres which failed to bear a crop.

‡ Including 53,150 acres which failed to bear a crop.

Table No. 20.

MAIZE.

RETURN FOR THREE YEARS SHOWING THE AREA AND PRODUCE OF MAIZE FOR GRAIN IN THE SEVERAL PETTY SESSIONS DISTRICTS OF THE STATE.

Divisions and Petty Sessions Districts.	1933.				1934.				1935.			
	No. of Growers.	Area.	Produce.	Average per Acre.	No. of Growers.	Area.	Produce.	Average per Acre.	No. of Growers.	Area.	Produce.	Average per Acre.
MORETON.		Acres.	Bushels.	Bushels.		Acres.	Bushels.	Bushels.		Acres.	Bushels.	Bushels.
Brisbane (North) ..	46	105	2,435	23·19	25	54	1,896	25·85	30	81	3,347	41·32
Brisbane (South) ..	6	16	411	25·69	3	9	276	30·67	3	39	838	21·49
Beaudesert	430	3,535	91,696	25·91	468	3,972	111,936	28·18	448	4,476	122,112	27·28
Caboolture	9	34	926	27·24	8	18	460	25·56	11	30	774	25·80
Cleveland	4	3	81	27·00	3	6	186	31·00	2	4	122	30·50
Crow's Nest	375	5,984	131,703	22·01	358	5,533	159,141	28·76	356	6,319	160,080	25·33
Dugandan	562	7,433	129,162	17·38	521	6,852	176,484	25·76	533	7,006	169,604	24·21
Esk	94	866	13,196	15·24	99	908	20,866	22·98	93	1,031	18,775	18·21
Gatton	471	6,405	106,487	16·63	429	5,601	150,602	26·89	341	4,824	88,714	18·39
Goodna	6	61	1,030	16·89	13	97	2,893	29·82	5	28	790	28·21
Harrisville ..	339	8,584	52,261	14·58	355	3,593	86,768	24·15	353	3,943	87,917	22·30
Ipswich	95	572	9,684	16·93	126	737	17,525	23·78	108	620	13,200	21·29
Kilcoy	66	485	8,506	17·54	120	831	21,811	26·25	100	814	20,597	25·30
Laidley	368	6,473	104,988	16·22	403	6,491	171,392	26·40	385	6,011	138,933	23·11
Logan	239	550	16,771	30·49	201	473	11,036	23·38	160	376	9,076	24·14
Lowood	271	4,194	64,891	15·47	288	4,512	102,170	22·64	254	3,500	92,428	26·41
Marburg	219	1,708	29,750	17·42	233	2,470	48,350	19·57	219	2,078	30,269	14·57
Maroochy	103	286	5,554	19·42	81	176	4,218	23·97	90	283	7,114	25·14
Redcliffe..	63	246	5,428	22·07	43	161	6,359	39·50	36	174	5,638	32·40
Rosewood	264	2,523	31,626	12·54	288	2,633	46,568	17·69	264	2,601	41,937	16·12
Southport	99	375	11,909	31·76	125	366	10,846	29·63	163	555	16,545	29·81
Toogoolawah	213	2,471	43,580	17·64	256	3,277	92,158	28·12	224	2,979	73,582	24·70
Woodford	95	375	7,553	20·14	109	489	9,759	19·96	98	528	14,080	26·67
Wynnum	4	4	62	15·50	2	2	50	25·00	1	1	20	20·00
Oakey-Cooyar	107	1,343	26,206	19·51	107	1,213	29,386	24·28	100	1,238	30,972	25·02
Toowoomba-Helidon ..	158	1,127	15,688	13·92	172	1,287	23,841	18·52	169	1,074	18,467	17·19
Total, Moreton ..	4,706	50,758	911,584	17·96	4,836	51,761	1,306,477	25·24	4,546	50,613	1,165,931	23·04
WIDE BAY.												
Biggenden	1	8	80	10·00	127	578	14,742	25·51	110	411	10,613	25·82
Bundaberg	169	679	12,195	17·96	117	344	9,049	26·31	95	294	6,578	22·37
Childers	30	217	2,688	12·39	3	22	235	10·68	5	18	301	16·72
Eidsvold..	55	466	4,484	9·62	73	401	7,761	19·35	48	274	2,857	10·43
Gayndah	224	2,075	27,547	13·28	278	2,230	51,216	22·97	190	1,657	29,819	18·00
Gin Gin	170	1,071	13,421	12·53	68	269	4,764	17·71	54	168	3,412	20·31
Gympie	180	1,225	36,430	29·74	265	1,657	55,754	33·65	190	1,300	48,787	37·53
Kilkivan..	39	275	5,198	18·90	50	385	11,141	28·94	34	260	7,205	27·71
Maryborough	51	105	1,734	16·51	47	108	2,191	20·29	40	81	1,807	22·31
Mount Perry	5	8	245	30·62	16	36	1,062	29·50	11	20	436	21·80
Nanango	689	16,654	403,059	24·20	680	14,461	451,565	31·23	627	14,103	351,285	24·91
Tiaro	79	398	9,816	24·66	113	458	11,288	24·65	82	345	8,221	23·83
Wienholt	823	20,022	522,771	26·11	755	15,924	462,049	29·02	758	15,405	360,195	23·38
Total, Wide Bay ..	2,515	43,203	1,039,668	24·06	2,592	36,878	1,082,817	29·37	2,244	34,336	831,516	24·22
PORT CURTIS.												
Banana	15	57	758	13·30	9	55	880	16·00	..	..	..	..
Gladstone	119	723	12,816	17·73	150	769	15,934	20·72	138	834	17,705	21·23
Monto	123	1,242	10,954	8·82	149	1,046	24,984	23·89	129	1,056	18,238	17·27
Mount Morgan	26	395	2,495	6·32	113	971	20,503	21·12	39	272	3,024	11·12
Rockhampton	143	947	16,790	17·73	171	967	16,511	17·07	125	806	12,909	16·02
St. Lawrence	7	25	749	29·96	6	17	370	21·76	5	12	114	9·50
Total, Port Curtis ..	433	3,389	44,562	13·15	598	3,825	79,182	20·70	436	2,980	51,990	17·45
EDGECUMBE	77	192	4,401	22·92	41	93	2,083	22·40	32	138	959	6·95
ROCKINGHAM.												
Atherton	323	18,733	811,673	43·33	309	16,942	223,970	13·22	324	18,665	438,891	23·51
All Other Districts ..	44	417	9,561	22·93	33	238	5,118	21·50	52	360	7,741	21·50
Total, Rockingham ..	367	19,150	821,234	42·88	342	17,180	229,088	13·33	376	19,025	446,632	23·48
YORK PENINSULA ..	6	36	869	24·14	3	40	975	24·38	7	41	1,030	25·12
CARPENTARIA	1	10	40	4·00	4	26	860	33·08	..	..	..	..
CENTRAL ..	5	29	530	18·29	6	27	494	18·30	..	..	..	..
MARANOA ..	10	37	522	14·11	16	110	1,170	10·64	18	108	651	6·03
DOWNS.												
Allora	192	4,780	90,345	18·90	206	5,182	142,345	27·47	211	5,558	115,916	20·86
Chinchilla	12	149	1,235	8·29	25	209	3,631	17·37	6	80	1,284	16·05
Clifton	354	11,149	179,384	16·09	320	10,101	239,161	23·68	310	9,339	176,325	18·88
Condamine	4	89	795	8·93	3	55	880	16·00	5	69	1,170	16·96
Dalby	79	1,052	10,748	10·22	92	873	15,793	18·09	123	1,207	23,876	19·78
Goondiwindi	..	..	..	..	1	3	36	12·00	1	5	100	20·00
Inglewood	8	64	1,710	26·72	18	197	2,237	11·36	16	213	2,150	10·09
Killarney	122	3,361	76,041	22·62	157	5,443	243,418	44·72	157	5,926	136,480	23·03
Oakey	447	8,257	131,928	15·98	484	8,134	217,445	26·73	452	7,370	160,725	21·81
Pittsworth	166	4,163	61,306	14·73	143	2,610	52,027	19·93	154	3,020	40,703	13·48
Stanthorpe	16	63	796	12·63	19	71	1,420	20·00	16	60	1,017	16·95
Texas	6	26	268	10·31	14	80	1,900	23·75	15	113	1,824	16·14
Toowoomba	381	5,509	108,295	19·66	443	5,926	155,950	26·32	334	4,824	101,762	21·09
Warwick	376	11,482	229,503	19·99	360	11,788	362,690	30·77	359	12,345	242,004	19·60
Total, Downs ..	2,163	50,144	892,354	17·80	2,285	50,672	1,438,933	28·40	2,159	50,129	1,005,336	20·05
Total, State ..	10,283	166,948	3,715,764	22·26	10,723	160,607	4,142,079	25·79	9,818	157,370	3,504,045	22·27

Table No. 21.

BARLEY.

RETURN FOR TWO YEARS SHOWING THE RESULT OF CROP, DISTINGUISHING BETWEEN MALTING AND OTHER VARIETIES.

Petty Sessions District.	Malting Grain.				Other Varieties Grain.			
	Acres.		Bushels.		Acres.		Bushels.	
	1934.	1935.	1934.	1935.	1934.	1935.	1934.	1935.
Allora	269	503	5,064	8,058	389	235	5,340	3,297
Banana ..	..	..	..	..	4	..	55	..
Clifton	2,810	1,981	52,783	31,013	601	421	7,790	5,286
Crow's Nest ..	22	34	298	394	31	..	554	..
Dalby	108	44	1,932	876	87	95	2,241	1,340
Dugandan	20	..	240	..	6	..	60	..
Inglewood	10	22	33	195	70	12	505	80
Killarney	154	56	2,910	798	51	97	759	1,370
Nanango	..	..	..	..	54	..	360	..
Oakey { Cooyar ..	..	..	..	..	16	7	231	126
Oakey { Oakey ..	425	217	6,183	2,330	342	260	4,559	2,994
Pittsworth	533	647	11,099	9,272	411	248	6,343	3,418
Roma	..	..	..	..	5	29	36	223
Texas	..	..	..	..	..	28	..	172
Toowoomba ..	1,183	701	23,177	10,821	359	291	7,595	5,052
Warwick	1,066	77	7,869	1,086	566	372	8,444	3,117
Wienholt	..	3	..	48	12	..	144	..
Total State ..	6,600	4,285	111,588	64,891	3,004	2,095	45,016	26,475

Table No. 22.

COTTON.

RETURN FOR FIVE YEARS SHOWING THE AREA AND PRODUCE OF COTTON.

Petty Sessions District.	Area.					Produce (Unginned).				
	1931.	1932.	1933.	1934.	1935.	1931.	1932.	1933.	1934.	1935.
	Acres.	Acres.	Acres.	Acres.	Acres.	Lb.	Lb.	Lb.	Lb.	Lb.
Banana	1,725	1,574	1,155	1,374	1,593	1,553,447	565,087	708,510	1,354,872	541,693
Biggenden	59	44	723	173	288	37,490	13,345	207,601	60,004	106,449
Bowen	10	11	13	23	17	5,600	5,617	920	22,681	6,434
Bundaberg	8	4	141	27	38	2,860	850	29,982	1,290	10,716
Childers	7	49	153	9	68	2,040	6,940	95,835	3,060	26,881
Chinchilla	..	30	181	2	112	..	300	15,947	300	28,457
Clermont	22	2	101	128	71	1,096	290	7,581	31,326	4,170
Clifton	..	..	..	..	30	..	..	..	..	7,159
Condamine	97	50	97	172	74	41,852	10,142	44,997	25,423	35,059
Dalby	70	90	99	18	101	37,147	5,460	38,447	9,700	26,334
Dugandan	71	196	197	31	57	63,586	80,814	63,538	11,286	22,708
Eidsvold	2,008	1,835	1,763	1,607	1,842	1,760,491	136,757	436,397	983,307	559,982
Emerald	25	19	94	51	133	4,331	3,544	21,338	15,495	15,400
Esk	49	113	26	41	57	28,389	10,925	7,456	9,189	35,706
Gatton	138	317	387	224	273	150,355	107,143	141,967	132,231	119,214
Gayndah	1,848	2,874	3,820	2,860	4,261	1,665,689	284,119	1,086,766	2,626,323	1,803,475
Gin Gin	145	113	225	90	12	58,844	29,998	74,350	14,998	8,315
Gladstone	2,915	391	849	328	278	2,554,497	99,086	211,518	270,642	79,186
Harrisville	83	168	159	52	14	71,027	62,162	66,185	22,714	5,127
Ipswich	23	31	89	32	120	17,583	8,407	33,767	17,308	35,179
Kilkivan	131	58	118	32	49	87,833	8,119	35,029	22,802	13,663
Laidley	130	209	209	157	103	91,706	41,578	67,547	40,928	38,523
Lowood	252	290	180	106	37	162,567	59,248	58,837	32,818	23,515
Mackay	1	27	54	2	113	367	22,301	7,269	500	22,431
Marburg	120	112	67	59	14	58,943	25,510	27,652	11,625	5,967
Mareeba	*	*	40	58	146	*	*	4,446	21,225	39,628
Maryborough ..	8	5	85	11	58	700	813	24,014	856	11,636
Monto	‡	5,272	10,752	5,966	7,898	‡	1,498,257	2,559,172	5,736,304	3,044,948
Mount Morgan ..	9,984	12,777	41,134	27,226	33,313	5,925,101	2,617,528	10,297,069	13,973,397	13,051,960
Mount Perry ..	5	..	76	35	43	2,791	..	19,996	27,171	22,628
Nanango	68	109	240	60	189	35,040	8,357	66,652	15,437	38,973
Rockhampton ..	660	1,209	2,439	1,009	1,484	157,566	323,495	433,689	926,831	436,670
Roma	442	584	498	418	334	81,117	49,805	149,645	112,341	49,715
Rosewood	77	102	179	37	22	62,022	14,445	61,039	4,037	5,384
St. Lawrence ..	10	30	129	44	45	4,343	17,221	27,132	9,954	15,438
Springsure	219	98	96	45	109	3,932	3,663	10,599	4,941	10,401
Tiaro	10	8	40	8	14	2,520	1,500	14,720	2,475	5,335
Toogoolawah ..	194	131	68	50	22	55,969	42,194	14,605	22,102	14,154
Toowoomba-Helidon	11	16	15	16	22	13,073	1,427	3,860	7,750	14,162
Wienholt	600	894	1,078	670	1,369	366,835	73,260	444,965	306,319	420,564
All Other Districts	227	153	434	146	124	75,895	30,409	97,267	32,217	22,079
Total State ..	22,452	29,995	68,203	43,397	†54,947	15,244,644	6,270,116	17,718,306	26,924,179	20,785,418

* Included in Atherton Petty Sessions District.

† Of this area 708 acres were returned as ratooned for 1936.

‡ Included in Eidsvold and Gladstone.

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Table No. 23.

SUGAR CANE—GROWERS AND AREAS, 1935.

Division and District.	CANE GROWERS.		AREA OF CANE GROWN.				
	With less than five Acres of Cane.	Total.	For Plants.	Standover and Unproductive.	Cut for Crushing.	Total.	Total per Grower.
	No.	No.	Acres.	Acres.	Acres.	Acres.	Acres.
Rockingham and York Peninsula—							
Cairns and Douglas	7	786	1,744	4,835	36,336	42,915	54·6
Cardwell, Ingham, and Innisfail	8	1,412	2,694	14,395	57,032	74,121	52·5
Total, Rockingham and York Peninsula ..	15	2,198	4,438	19,230	93,368	117,036	53·2
Edgecumbe—							
Ayr and Townsville	9	637	1,070	8,309	22,658	32,037	50·3
Proserpine and Bowen	13	377	501	4,682	8,847	14,030	37·2
Mackay and St. Lawrence	30	1,720	2,918	21,867	58,598	83,383	48·5
Total, Edgecumbe	52	2,734	4,489	34,858	90,103	129,450	47·3
Wide Bay—							
Bundaberg and Gin Gin	71	1,176	389	14,737	25,024	40,150	34·1
Biggenden, Childers, Maryborough, Tiaro, and Gympie (Mary Valley)	118	783	194	6,032	14,691	20,917	26·7
Total, Wide Bay	189	1,959	583	20,769	39,715	61,067	31·2
Moreton—							
Logan and Southport	59	198	36	484	1,043	1,563	7·9
Maroochy, Woodford, Redcliffe, and Gympie (Coastal)	136	449	50	1,248	4,286	5,584	12·4
Total, Moreton	195	647	86	1,732	5,329	7,147	11·0
Total, Queensland	451	7,538	9,596	76,589	228,515	314,700	41·7

NOTE.—Area is exclusive of 4,619 acres used for Fodder.

Table No. 24.

SUGAR—PRODUCTION OF CANE AND RAW SUGAR, 1935.

Division and District.	ON FARMS IN EACH DISTRICT.				IN MILLS IN EACH DISTRICT.			
	Cane Grown.	Cane per Acre.	Estimated Raw Sugar Yield. (*a*)	Sugar per Acre.	Cane Crushed.	Raw Sugar Produced. (*a*)	Cane for each ton of Sugar.	Molasses Produced.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Gallons.
Rockingham and York Peninsula—								
Cairns and Douglas	701,103	19·29	100,847	2·78	707,359	101,737	6·95	2,814,560
Cardwell, Ingham, and Innisfail ..	1,113,516	19·52	162,966	2·86	1,073,445	156,826	6·84	4,540,344
Total, Rockingham and York Peninsula	1,814,619	19·44	263,813	2·83	1,780,804	258,563	6·89	7,354,904
Edgecumbe—								
Ayr and Townsville	489,379	21·60	77,300	3·41	523,358	82,576	6·34	2,188,203
Proserpine and Bowen	133,726	15·12	20,690	2·34	155,890	24,118	6·46	613,600
Mackay and St. Lawrence	873,496	14·91	130,657	2·23	851,168	127,203	6·69	3,041,230
Total, Edgecumbe	1,496,601	16·61	228,647	2·54	1,530,416	233,897	6·54	5,843,033
Wide Bay—								
Bundaberg and Gin Gin	551,962	22·06	70,515	2·82	589,844	75,432	7·82	2,526,328
Biggenden, Childers, Maryborough, Tiaro, and Gympie (Mary Valley)	258,267	17·58	33,871	2·31	220,385	28,954	7·61	846,635
Total, Wide Bay	810,229	20·40	104,386	2·63	810,229	104,386	7·76	3,372,963
Moreton—								
Logan and Southport	19,297	18·50	2,166	2·08	18,960	2,119	8·95	42,088
Maroochy, Woodford, Redcliffe, and Gympie (Coastal)	79,689	18·59	11,068	2·58	80,026	11,115	7·20	335,551
Total, Moreton	98,986	18·57	13,234	2·48	98,986	13,234	7·48	377,639
Total, Queensland	4,220,435	18·47	610,080	2·67	4,220,435	610,080	6·92	16,948,539

(*a*) Raw Sugar Production is stated in tons of 94 net titre

SUGAR DISTRICTS.—The divisions used are the standard statistical divisions (as used throughout this Report) with the following modifications:—

(1) Although actually in Port Curtis, St. Lawrence Petty Sessions District, being portion of the Mackay Sugar area, is included in Edgecumbe.

(2) The Mary Valley portion of Gympie Petty Sessions District is included in Wide Bay, the cane from this area having been crushed at Bauple Mill.

(3) The Coastal portion of Gympie District south of the City, though actually in Wide Bay, is included in Moreton, the cane from this area having been crushed at Nambour Mill.

Table No. 25.

SUGAR—FIVE YEARS SUMMARY FOR DIVISIONS.

Statistical Division.	Year.	On Farms in each Division.			In Mills in each Division.		
		Area Cut for Crushing.	Cane Produced.	Cane per Acre.	Cane Crushed.	Raw Sugar Produced. (*a*)	Cane for each Ton of Sugar.
		Acres.	Tons.	Tons.	Tons.	Tons.	Tons.
Rockingham and York Peninsula	1931	98,284	2,109,318	21·46	2,077,310	300,185	6·92
	1932	98,098	2,097,124	21·38	2,054,030	299,105	6·87
	1933	97,926	2,318,311	23·67	2,270,466	311,529	7·29
	1934	90,999	1,732,883	19·04	1,686,857	233,976	7·21
	1935	93,368	1,814,619	19·44	1,780,804	258,563	6·89
Edgecumbe	1931	84,907	1,233,747	14·53	1,265,755	188,403	6·72
	1932	82,365	1,240,689	15·06	1,283,783	191,166	6·72
	1933	85,936	1,689,359	19·66	1,737,204	249,738	6·96
	1934	87,490	1,721,133	19·67	1,767,159	269,801	6·55
	1935	90,103	1,496,601	16·61	1,530,416	233,897	6·54
Wide Bay	1931	45,841	629,902	13·74	628,868	84,573	7·44
	1932	20,475	147,436	7·20	146,947	15,896	9·24
	1933	39,233	559,949	14·27	558,533	64,182	8·70
	1934	36,422	765,729	21·02	763,926	100,309	7·62
	1935	39,715	810,229	20·40	810,229	104,386	7·76
Moreton	1931	4,272	61,333	14·36	62,367	8,115	7·69
	1932	4,108	61,121	14·88	61,610	7,860	7·84
	1933	5,059	99,503	19·67	100,919	13,110	7·70
	1934	3,515	51,635	14·69	53,438	7,075	7·55
	1935	5,329	98,986	18·57	28,986	13,234	7·48

(*a*) In tons of 94 n.t.

Table No. 26.

MOLASSES—PRODUCTION AND DISPOSAL.

Statistical Division.	Molasses Produced.	Molasses Disposed of.						
		To Distilleries.	As Stock Food.	As Manure.	In Furnaces.	In Ferment.	For Other Uses.	As Waste.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
Rockingham and York Peninsula	7,354,904	1,959,960	1,047,824	807,025	2,812,364	68,300	151,397	489,535
Edgecumbe	5,843,033	1,147,045	2,123,741	303,868	1,163,897	17,000	12,100	718,798
Wide Bay	3,372,963	1,260,506	535,421	1,448,635	127,214	40,000	5,342	6,345
Moreton	377,639	249,920	110,769	..	..	..	6,680	..
Total, Queensland	16,948,539	4,617,431	3,817,755	2,559,528	4,103,475	125,300	175,519	1,214,678

FIVE YEARS SUMMARY—QUEENSLAND.

1931	17,313,140	3,235,075	2,940,551	1,753,086	7,075,965	*	47,276	910,418
1932	14,984,649	2,796,120	2,988,905	1,414,338	6,182,769	*	108,122	1,402,483
1933	19,361,604	4,107,566	2,902,188	1,793,101	7,348,015	*	340,928	1,747,365
1934	17,262,794	4,573,037	3,035,598	2,227,905	5,339,489	104,552	444,680	1,162,715
1935	16,948,539	4,617,431	3,817,755	2,559,528	4,103,475	125,300	175,519	1,214,678

NOTE.—The difference between production and total disposals of molasses is accounted for by stocks carried over.

* Not available.

Table No. 27.

SUGAR-GROWING—SUMMARY.

Year.	Cane Growers.		Area of Cane Grown.			Production.					
	With less than 5 Acres of Cane.	Total.	Cut for Crushing.	Total under Cane. (*b*)	Total per Grower.	Cane.	Raw Sugar. (*c*)	Cane per Acre Cut.	Cane for each ton of Sugar.	Sugar per Acre Cut.	Value. of Cane Cut.
	No.	No.	Acres.	Acres.	Acres.	Tons.	Tons.	Tons.	Tons.	Tons.	£
1911–1915 (*a*) ..	*	*	95,837	146,799	*	1,537,880	179,107	16·05	8·57	1·87	1,591,405
1916–1920 (*a*) ..	*	*	94,042	162,921	*	1,711,354	200,840	18·20	8·52	2·14	2,985,826
1921–1925 (*a*) ..	*	*	151,933	225,962	*	2,668,161	346,776	17·56	7·69	2·28	5,945,796
1926–1930 (*a*) ..	729	7,255	209,132	282,513	38·94	3,465,545	486,187	16·57	7·13	2·32	6,935,120
1931–1935 (*a*) ..	493	7,395	222,689	306,298	41·42	4,147,921	591,021	18·63	7·02	2·65	7,086,777
1926	736	7,344	189,312	266,519	36·29	2,925,662	389,272	15·45	7·52	2·06	6,153,474
1927	655	7,242	203,748	274,838	37·95	3,555,827	485,745	17·45	7·32	2·38	7,108,907
1928	647	7,149	215,674	283,476	39·65	3,736,311	520,620	17·32	7·18	2·41	7,209,778
1929	1,064	7,311	214,880	291,660	39·89	3,581,265	518,516	16·67	6·91	2·41	7,163,024
1930	543	7,228	222,044	296,070	40·96	3,528,660	516,783	15·89	6·83	2·33	7,040,415
1931	541	7,392	233,304	309,818	41·91	4,034,300	581,276	17·29	6·94	2·49	7,326,233
1932	553	7,231	205,046	291,136	40·26	3,546,370	514,027	17·30	6·90	2·51	6,852,717
1933	409	7,386	228,154	311,910	42·23	4,667,122	638,559	20·46	7·31	2·80	7,247,122
1934	513	7,426	218,426	303,926	40·93	4,271,380	611,161	19·56	6·99	2·80	6,934,764
1935	451	7,538	228,515	314,700	41·7[illegible]	4,220,435	(*d*)610,080	18·47	6·92	2·67	7,073,049

* Not available. (*a*) Annual average. (*b*) Exclusive of area cut for fodder. (*c*) In tons of 94 N.T.

(*d*) The estimated value of Raw Sugar produced in 1935 was £9,873,000, equal to £16 3s. 8d. a ton at nearest mill port.

Table No. 28.

SUGAR MILLS (*a*), 1934–35.

Division.	Mills.	Workers During Period of Operation.	Value of—			
			Machinery and Plant.	Land and Buildings.	Output.	Production.
	No.	No.	£	£	£	£
Rockingham and York Peninsula ..	10	1,804	3,859,060	319,142	3,846,539	827,888
Edgecumbe	12	1,808	1,944,091	281,554	3,943,970	849,000
Wide Bay	8	848	710,832	148,292	1,620,292	380,634
Moreton	3	125	191,414	14,009	122,959	29,674
Total, Queensland	33	4,585	6,705,397	762,997	9,533,760	2,087,196
FIVE YEARS SUMMARY.						
1930–31	35	5,711	6,540,306	766,447	10,067,549	2,383,037
1931–32	35	5,693	6,599,847	765,306	10,519,615	2,508,930
1932–33	33	5,191	6,625,262	806,574	9,531,404	1,978,093
1933–34	33	5,374	6,518,636	794,111	10,281,640	2,222,457
1934–35	33	4,585	6,705,397	762,997	9,533,760	2,087,196

(*a*) Including Mill Tramways, but not including Refineries.

Table No. 29.

AUSTRALIAN SUGAR PRODUCTION.

Year.	Area Under Cultivation.	Area Harvested.	Production (Cane or Beet).	Raw Sugar Made. (*a*)	Raw Sugar as Percentage of Australian Total.
	Acres.	Acres.	Tons.	Tons.	Per cent.
QUEENSLAND (CANE SUGAR).					
1931	309,818	233,304	4,034,300	581,276	95·3
1932	291,136	205,046	3,546,370	514,027	95·5
1933	311,910	228,154	4,667,122	638,559	94·9
1934	303,926	218,426	4,271,380	611,161	94·5
1935	314,700	228,515	4,220,435	610,080	93·6
NEW SOUTH WALES (CANE SUGAR).					
1931	15,919	8,272	179,153	23,288	3·8
1932	16,145	7,796	156,818	18,567	3·4
1933	16,929	10,015	230,918	28,809	4·3
1934	18,531	7,572	227,424	30,690	4·7
1935	*	10,416	280,472	36,463	5·6
VICTORIA (BEET SUGAR).					
1931	3,173	3,173	43,209	5,428	0·9
1932	3,155	3,155	36,740	5,701	1·1
1933	3,234	3,234	50,625	5,303	0·8
1934	3,062	3,062	40,788	4,998	0·8
1935	3,165	3,165	37,634	5,115	0·8

(*a*) In tons of 94 N.T. * Not yet available.

Table No. 30.

SUGAR MILLS.

Number of Sugar Mill Companies to which advances have been made under—	
The Sugar Works Guarantee Acts	13
"*The Sugar Works Act of* 1911" (Babinda and South Johnstone)	2
"*The Sugar Works Act of* 1922" (Tully River Mill)	1
From Consolidated Revenue (North Eton and Racecourse)	2
From General Loan Fund	7
From Trust Funds	None
Number of Tramway Companies to which advances have been made under—	
The Sugar Works Guarantee Acts (Double Peak)	1
Under other conditions	None

Total amount of advances made to 31st December, 1935, under the Sugar Works Guarantee Acts—

	£	*s.*	*d.*	£	*s.*	*d.*
Marian Mill	39,000	0	0			
Mount Bauple	32,480	16	1			
Pleystowe	35,472	1	3			
Nerang River	19,998	18	10			
Gin Gin	50,000	0	0			
Plane Creek	65,000	0	0			
North Eton	18,200	0	0			
Proserpine	54,000	0	0			
Moreton	32,864	15	0			
Mulgrave	46,000	0	0			
Isis	38,636	0	0			
Mossman	66,300	0	0			
Johnstone	847	17	8			
				498,800	8	10
Under "*The Sugar Works Act of* 1911"—						
Babinda Mill	405,429	18	8			
South Johnstone	648,009	7	8			
				1,053,439	6	4
Under "*The Sugar Works Act of* 1922"—						
Tully River				795,221	0	0
From Consolidated Revenue—						
North Eton	26,000	0	0			
Racecourse	21,000	0	0			
				47,000	0	0
From General Loan Fund—						
North Eton Mill	62,965	18	4			
Mount Bauple	8,500	0	0			
Gin Gin	2,000	0	0			
Proserpine	128,265	9	4			
Moreton	14,350	0	0			
Mossman	14,071	14	0			
				230,153	1	8
Indebtedness at 31st December, 1935—						
Under "*The Sugar Works Act of* 1911"—						
Babinda Mill				..		
Under "*The Sugar Works Act of* 1922"—						
Tully River Mill				402,035	7	7
Under "*The South Johnstone, Gin Gin, North Eton, and Mount Bauple Sugar Works Act of* 1927"—						
South Johnstone Mill	238,809	0	3			
Gin Gin	15,854	19	9			
North Eton	33,081	6	3			
Mount Bauple	20,000	0	0			
				307,745	6	3
To General Loan Fund—						
Proserpine				78,845	9	11

Table No. 31.

ARROWROOT.

RETURN SHOWING ARROWROOT PRODUCTION FOR FIVE YEARS.

Year.	Area.	Production Tubers.	Value.	No. of Mills.	Hands Employed.	Tubers used.	Arrowroot Made.	Value.
	Acres.	Tons.	£		No.	Tons.	Tons.	£
1931	789	8,276	11,586	12	102	5,608	574	16,714
1932	691	6,878	12,037	12	98	4,820	476	13,164
1933	797	9,950	13,432	14	101	8,908	907	23,200
1934	835	9,712	10,683	14	133	8,214	827	17,169
1935	860	10,239	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)

(*a*) Not yet available.

Table No. 32.

TOBACCO.

RETURN FOR FIVE YEARS SHOWING THE AREA AND PRODUCE OF TOBACCO.

Petty Sessions District.	Area.					Produce (Dried Leaf).				
	1931.	1932.	1933.	1934.	1935.	1931.	1932.	1933.	1934.	1935.
	Acres.	Acres.	Acres.	Acres.	Acres.	Lb.	Lb.	Lb.	Lb.	Lb.
Moreton—										
Brisbane (North) ..	1	1	4	..	..	125	150	1,480	..	..
Brisbane (South) ..	3	..	20	..	..	343	..	20,000	..	..
Caboolture	..	9	6	3	20	..	2,007	338	2,694	300
Gatton	..	..	2	..	..	..	..	500	..	..
Lowood	1	1	1	..	..	13	118	500	..	..
Rosewood	..	1	..	..	..	..	500	..	..	..
Wide Bay—										
Biggenden	..	1	..	..	..	..	487	..	..	..
Bundaberg	1	5	4	29	26	25	1,318	1,613	3,980	9,739
Gympie	1	..	9	..	..	64	..	4,530	..	..
Port Curtis—										
Gladstone	3	38	48	32	62	1,210	10,926	19,006	8,481	24,797
Rockhampton ..	..	..	2	..	1	..	..	415	..	387
Edgecumbe—										
Ayr	17	39	16	9	10	6,378	26,192	7,433	2,920	4,660
Bowen	28	195	58	76	139	9,817	44,792	25,060	71,506	70,228
Charters Towers ..	..	15	17	18	4	..	5,557	11,565	18,646	1,558
Collinsville	..	..	..	14	15	..	..	..	6,240	5,500
Mackay	2	76	75	25	87	705	46,017	63,271	38,052	60,621
Proserpine	..	1	..	..	..	..	1,550	..	..	..
Ravenswood ..	..	5	6	6	3	..	1,680	2,800	5,824	3,584
Townsville	11	189	228	110	99	5,269	76,353	55,043	88,896	24,840
Rockingham—										
Atherton	130	1,346	..	15	15	71,172	709,864	..	3,849	6,494
Cairns	27	58	168	30	20	15,231	19,265	43,385	4,710	4,422
Chillagoe	..	454	13	1	..	..	254,123	3,978	70	..
Herberton	..	72	131	18	18	..	33,557	54,632	3,246	4,649
Ingham	33	56	2	4	4	10,289	33,191	300	1,200	3,500
Innisfail	13	..	..	..	..	7,245	..	..	..	..
Mareeba	..	..	2,227	1,258	2,053	..	..	1,046,571	553,253	1,051,308
York Peninsula—										
Cook	..	2	17	6	5	..	673	2,549	1,300	750
Downs—										
Goondiwindi ..	..	10	..	..	..	..	16,000	..	..	..
Inglewood	..	227	258	234	337	..	151,340	187,940	82,131	143,835
Killarney	..	99	..	..	..	..	112,693	..	..	..
Stanthorpe	2	116	86	42	25	1,420	75,464	42,546	40,653	26,730
Texas	109	799	606	151	174	131,364	677,804	484,299	87,398	107,181
Warwick	..	2	..	..	..	..	2,240	..	..	..
Total State ..	382	3,817	4,004	2,081	3,117	260,670	2,303,861	2,079,754	1,025,049	1,555,083

NOTE.—There were 405 growers in 1935.

Table No. 33.

GRAPES.

RETURN FOR THREE YEARS SHOWING THE AREA UNDER VINES AND PRODUCTION OF GRAPES IN THE PRINCIPAL DISTRICTS OF THE STATE.

Petty Sessions District.	Total Area under Vines.			Bearing Area.			Production.		
	1933.	1934.	1935.	1933.	1934.	1935.	1933.	1934.	1935.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Lb.	Lb.	Lb.
Banana	2	1	1	2	1	1	4,000	620	2,800
Brisbane (North)	336	310	286	289	282	256	578,019	412,943	398,371
Brisbane (South)	5	5	2	5	5	2	34,410	9,550	663
Caboolture	1	2	3	1	2	3	450	900	1,100
Cape River	1	1	1	1	1	1	2,776	2,542	8,214
Charleville	1	1	3	1	1	3	3,185	2,130	4,020
Charters Towers	19	18	14	19	18	14	50,486	41,819	38,517
Cleveland	7	5	2	4	3	2	6,198	4,702	2,000
Clifton	1	1	2	1	1	2	2,330	1,400	1,590
Condamine	2	2	6	2	1	6	3,530	1,876	2,850
Cunnamulla	..	1	2	..	1	2	..	1,350	4,050
Dalby	1	1	1	1	1	1	674	1,960	1,132
Eidsvold	..	..	1	..	..	1	..	..	1,100
Gatton	4	..	2	2	..	2	4,000	..	800
Gladstone	6	5	6	6	4	6	7,085	7,820	4,940
Goondiwindi	..	..	2	..	..	2	..	..	840
Gympie	1	2	3	1	2	1	1,430	1,400	530
Herberton	7	5	15	7	5	13	15,680	8,737	16,383
Laidley	1	3	2	1	3	2	1,800	4,900	1,420
Logan	5	5	3	5	4	3	4,851	4,890	5,606
Lowood	42	13	71	35	8	55	303,894	190,500	248,200
Mackay	1	1	1	1	1	1	1,289	1,015	2,250
Maryborough	23	11	7	22	10	7	19,842	10,681	8,590
Nanango	..	1	1	..	1	1	..	2,190	1,380
Oakey	6	5	7	5	5	7	12,940	14,173	14,471
Rockhampton	30	28	59	25	24	43	91,332	65,405	68,570
Roma	440	400	538	393	375	496	679,045	778,830	378,711
Stanthorpe	968	1,027	1,339	707	694	1,018	3,065,656	3,079,326	3,862,256
Tiaro	2	3	6	1	2	4	5,000	3,360	6,140
Toogoolawah	4	10	9	4	10	9	11,240	4,110	8,000
Toowoomba { Helidon	..	..	3	..	..	3	..	..	19,100
Toowoomba { Toowoomba	6	10	14	6	10	14	29,371	25,484	23,479
Warwick	18	22	35	18	16	26	22,055	48,344	43,178
Woodford	..	..	1	..	..	1	..	..	2,170
Wynnum	6	8	10	5	8	9	22,080	34,056	33,880
Yeulba	1	1	2	1	1	2	680	500	1,270
All Other Districts	16	18	10	15	17	6	67,694	59,110	950
Total State	1,963	1,926	2,470	1,586	1,517	2,025	5,053,022	4,825,223	5,219,521

Table No. 34.

WINE.

RETURN SHOWING THE PRINCIPAL DISTRICTS IN WHICH WINE WAS MADE DURING THE YEAR 1935, AND TOTAL STATE FIGURES FOR FIVE YEARS.

Petty Sessions District.	Number of Makers.	Quantity of Wine Made.	Quantity of Wine Spirit Distilled.
		Gallons.	Gallons.
Brisbane (North)	1	30	..
Brisbane (South)	1	350	..
Clifton	3	117	..
Gladstone	1	70	..
Oakey	1	120	..
Rockhampton	1	60	..
Roma	2	18,614	..
Stanthorpe	3	1,095	..
Toogoolawah	1	400	..
Toowoomba	5	713	..
Warwick	1	750	..
Wynnum	1	250	..
Total State	21	22,569	976
Total State, 1935	21	22,569	976
1934	26	38,051	611
1933	38	31,796	2,606
1932	39	35,301	1,488
1931	47	41,456	3,663

Table No. 35.

BANANAS.

RETURN FOR THREE YEARS SHOWING THE AREA AND PRODUCTION OF BANANAS IN THE STATE.

Petty Sessions District.	Growers.			Total Area.			Area Bearing.			Produce.		
	1933.	1934.	1935.	1933.	1934.	1935.	1933.	1934.	1935.	1933.	1934.	1935.
	No.	No.	No.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Bunches.	Bunches.	Bunches.
Atherton	..	5	2	13	12	2	13	10	2	2,820	2,700	100
Ayr	..	2	1	35	24	30	35	24	30	9,000	4,000	2,600
Beaudesert	..	4	2	37	26	12	20	24	12	4,606	6,064	1,850
Biggenden	..	2	1	9	8	2	8	8	2	2,000	2,700	172
Bowen	..	8	6	15	10	11	15	8	11	2,988	1,369	3,000
Brisbane (North)	..	71	74	391	344	280	195	225	177	87,618	48,610	38,609
Brisbane (South)	..	5	5	12	21	12	5	12	9	1,500	3,622	2,100
Bundaberg	..	26	22	216	107	82	174	84	68	50,359	36,933	36,787
Caboolture	..	37	30	324	312	249	147	233	163	33,966	53,132	50.455
Cairns	..	39	34	162	176	158	132	162	151	19,305	16,360	15,935
Cardwell	..	20	7	46	62	40	37	58	27	5,098	8,022	4,330
Charters Towers	..	..	1	..	..	6	..	..	..	..	..	..
Childers	..	1	..	..	1	..	..	1	..	..	500	..
Chillagoe	..	..	1	..	..	1	..	..	1	..	..	10
Cleveland	..	130	115	251	269	222	120	131	171	33,020	33,902	33,496
Cook	..	4	3	6	5	4	6	5	3	482	459	371
Dugandan	..	1	1	6	6	5	6	6	5	1,500	2,000	600
Esk	..	1	6	60	3	27	29	..	23	4,085	..	5,640
Gayndah	Not Available.	3	4	11	5	12	8	5	9	980	453	898
Gin Gin		1	1	2	1	2	1	1	..	100	100	..
Gladstone		18	19	64	59	51	32	43	39	5,203	7,600	9,660
Gympie		185	136	1,990	1,403	934	1,334	1,117	809	393,073	316,414	178,452
Harrisville		2	..	1	1	..	1	1	..	20	90	..
Ingham		1	1	7	4	1	3	..	1	230	..	100
Innisfail		1	..	13	14	..	10	11	..	1,228	224	..
Ipswich		..	..	9	..	..	9	..	..	700	..	..
Kilcoy		13	5	95	142	51	67	92	48	10,857	29,723	6,458
Kilkivan	..	1	..	22	12	..	17	12	..	500	1,200	..
Laidley	..	1	1	2	2	3	2	2	2	300	330	300
Logan	..	177	167	686	692	655	407	463	534	118,473	135,931	165,187
Mackay	..	18	13	103	95	50	78	53	35	15,806	16,761	7,084
Mareeba	..	1	2	1	1	4	1	1	4	80	60	180
Maroochy	..	351	331	2,382	2,090	1,820	1,305	1,521	1,520	373,177	402,781	416,011
Maryborough	..	26	12	86	73	39	68	69	35	11,378	10,502	4,835
Mount Morgan	..	1	..	..	1	..	..	1	..	..	30	..
Mount Perry	..	2	..	..	8	..	..	5	..	..	730	..
Nanango	..	1	..	..	2	..	..	..	..	..	..	..
Proserpine	..	..	..	14	..	..	6	..	..	672	..	..
Redcliffe	..	62	52	804	443	238	478	308	174	162,601	96,888	44,089
Rockhampton	..	57	43	308	319	242	199	225	195	124,828	89,733	49,349
Somerset	..	3	..	14	193	..	14	70	..	480	680	..
Southport	..	235	236	1,983	2,777	2,582	1,302	1,632	2,139	430,139	468,355	527,274
St. Lawrence	..	4	6	6	9	13	6	9	8	537	1,750	1,450
Tiaro	..	16	8	141	79	43	104	51	39	12,275	8,490	7,250
Toogoolawah	..	1	..	12	7	..	9	6	..	1,600	1,000	..
Townsville	..	13	12	50	48	41	35	36	36	5,761	7,363	3,380
Woodford	..	28	51	440	353	511	273	238	461	80,240	69,266	99,518
Wynnum	..	10	6	97	104	65	66	64	61	17,920	19,073	15,848
Total State	..	1,588	1,417	10,926	10,323	8,500	6,777	7,027	7,004	2,027,505	1,905,900	1,733,378

Table No. 36.

PINEAPPLES.

RETURN FOR THREE YEARS SHOWING THE AREA AND PRODUCTION OF PINEAPPLES IN THE STATE.

Petty Sessions District.	Total Area.			Bearing Area.			Produce.		
	1933.	1934.	1935.	1933.	1934.	1935.	1933.	1934.	1935.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Dozen.	Dozen.	Dozen.
Atherton	..	1	..	..	1	..	..	40	..
Ayr	..	4	4	..	4	4	..	40	10
Beaudesert	1	2	..	..	..	..	..	..	..
Biggenden	..	6	6	..	6	5	..	800	835
Bowen	156	188	234	137	150	204	22,323	26,333	29,724
Brisbane (North)	441	407	364	361	351	300	97,724	82,983	83,522
Brisbane (South)	274	211	217	216	198	192	36,717	37,054	37,581
Bundaberg	62	23	57	49	17	31	7,763	3,120	3,875
Caboolture	626	630	657	475	495	497	139,849	74,122	162,124
Cairns	43	49	45	38	45	45	3,870	4,170	4,870
Cardwell	8	7	3	6	7	3	730	433	103
Childers	1	3	..	1	3	..	250	500	..
Cleveland	759	672	541	517	504	438	143,430	34,661	101,648
Cook	..	..	2	..	..	2	..	..	86
Dugandan	2	1	1	..	1	1	..	75	62
Esk	1	..	1	1	..	1	40	..	30
Gayndah	11	5	9	3	4	6	450	680	696
Gin Gin	9	8	8	9	8	8	590	1,760	650
Gladstone	47	25	20	15	18	14	1,581	2,974	2,201
Gympie	498	528	635	381	413	485	124,788	141,155	129,560
Ingham	12	3	..	9	..	..	1,390	..	..
Ipswich	44	30	34	39	30	34	6,900	45,040	8,120
Kilcoy	1	..	..	1	..	..	20	..	..
Laidley	1	2	3	1	2	2	100	85	181
Logan	120	85	51	88	71	41	26,905	17,269	11,847
Lowood	18	12	10	18	11	10	3,510	2,530	2,410
Mackay	3	6	21	2	5	12	884	1,039	2,200
Marburg	10	12	15	7	11	14	820	1,270	1,620
Mareeba	..	..	2	..	..	2	..	..	90
Maroochy	1,829	1,750	2,097	1,468	1,471	1,582	596,195	451,358	554,690
Maryborough	226	192	124	176	177	95	37,169	37,404	24,752
Monto	..	..	1	..	..	1	..	..	95
Mount Morgan	11	10	8	9	10	8	708	1,235	839
Mount Perry	..	2	..	..	2	..	..	82	..
Proserpine	1	1	..	1	1	..	140	410	..
Redcliffe	84	89	98	59	61	70	12,703	43,547	13,687
Rockhampton	235	215	217	189	189	194	36,827	56,140	43,738
Rosewood	..	1	..	..	..	..	..	..	..
Somerset	6	11	1	6	11	1	120	146	60
Southport	36	34	21	15	18	18	3,747	3,800	4,190
St. Lawrence	8	8	16	8	8	9	522	1,300	2,232
Tiaro	37	35	40	26	29	37	3,027	3,500	4,575
Townsville	129	178	96	121	169	89	25,045	32,977	83,079
Wienholt	..	3	1	..	3	1	..	150	20
Woodford	15	16	26	12	15	23	1,976	2,794	3,840
Wynnum	124	119	93	87	84	66	16,487	13,855	13,573
Total State	5,889	5,584	5,779	4,551	4,603	4,545	1,355,300	1,126,831	1,333,415

Table No. 37.

ORANGES AND MANDARINS.

RETURN FOR THREE YEARS SHOWING THE AREA AND PRODUCTION OF ORANGES IN THE PRINCIPAL DISTRICTS OF THE STATE.

Petty Sessions District.	Total Area.			Bearing Area.			Produce.		
	1933.	1934.	1935.	1933.	1934.	1935.	1933.	1934.	1935.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Bushels.	Bushels.	Bushels.
Allora	22	39	28	22	33	22	2,000	2,500	1,500
Atherton	10	4	4	7	2	3	305	177	519
Beaudesert	16	2	13	14	2	12	984	1,115	404
Bowen..	43	48	38	39	41	32	1,367	1,567	1,251
Brisbane (South) ..	11	13	6	9	5	6	1,093	667	433
Bundaberg	31	39	65	29	36	41	3,709	5,320	4,712
Caboolture	67	82	98	44	68	67	7,905	9,572	8,967
Cairns	36	52	36	26	37	25	3,471	5,163	4,632
Cape River	16	15	16	14	12	12	1,467	1,666	1,257
Cardwell	204	211	178	144	147	128	17,966	11,955	9,884
Charleville	13	13	12	11	10	10	975	995	1,016
Charters Towers ..	59	65	58	53	61	57	3,354	3,154	3,461
Childers	37	31	33	25	29	32	3,650	3,650	5,069
Cleveland	40	25	15	29	16	11	1,449	1,013	685
Cook	32	22	29	31	21	27	586	298	878
Crow's Nest	28	27	26	14	24	19	1,047	2,571	1,706
Cunnamulla	..	4	8	..	3	7	..	111	380
Emerald	23	31	33	17	30	33	2,400	5,834	3,070
Esk	57	64	59	55	56	52	6,187	4,229	3,036
Gatton	105	93	40	62	58	22	13,428	11,495	7,351
Gayndah	156	139	181	99	82	130	12,969	8,737	16,765
Gin Gin	2	3	4	2	3	4	40	460	452
Gladstone	42	48	43	38	43	38	1,794	3,307	2,625
Gympie	55	63	46	44	55	39	3,006	13,347	1,851
Herberton	4	1	3	..	1	2	..	19	404
Hughenden	6	7	5	6	7	5	440	450	539
Ingham	20	27	22	13	20	17	2,295	9,689	1,400
Ipswich	11	11	11	11	11	11	185	1,320	1,320
Logan	71	47	32	65	46	30	6,428	7,448	3,512
Lowood	25	23	24	16	23	24	2,220	2,220	1,413
Mackay	68	45	41	48	31	34	4,683	5,850	3,841
Maroochy	932	1,003	939	788	893	796	86,759	127,152	97,879
Maryborough ..	519	454	487	395	382	410	43,904	75,849	53,832
Mount Morgan ..	17	20	15	14	16	14	1,033	1,790	1,791
Proserpine	28	23	18	24	22	18	1,613	1,372	833
Ravenswood	5	6	5	5	6	5	116	230	270
Redcliffe	33	19	15	29	15	12	2,012	1,415	1,225
Rockhampton ..	252	232	234	200	198	196	23,703	27,841	20,399
Roma	39	48	49	27	33	39	3,842	3,013	1,341
Southport	91	80	65	74	62	52	9,255	7,444	6,522
Tiaro	11	60	15	9	56	12	1,165	3,535	1,092
Toowoomba—									
Helidon	30	15	13	21	9	7	4,034	1,730	1,316
Toowoomba ..	21	24	20	14	20	16	2,133	1,987	1,866
Townsville	16	21	48	14	15	32	626	872	714
Wienholt	1	3	7	1	3	6	26	660	811
Woodford	9	10	10	7	8	9	899	1,212	1,321
All Other Districts ..	110	109	75	87	85	59	5,873	6,226	2,224
Total State ..	3,424	3,421	3,222	2,696	2,836	2,635	294,396	388,207	287,769

Table No. 38.

MANGOES.

RETURN FOR THREE YEARS SHOWING THE AREA AND PRODUCTION OF MANGOES IN THE SEVERAL PETTY SESSIONS DISTRICTS OF THE STATE.

Petty Sessions District.	Total Area.			Bearing Area.			Produce.		
	1933.	1934.	1935.	1933.	1934.	1935.	1933.	1934.	1935.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Bushels.	Bushels.	Bushels.
Bowen..	35	51	73	26	35	53	2,005	7,467	10,103
Brisbane (North) ..	4	9	6	2	9	5	55	874	280
Brisbane (South) ..	1	1	1	1	1	1	20	6	30
Bundaberg	..	..	1	..	..	1	..	..	10
Caboolture	..	1	..	..	1	..	..	40	..
Cairns	1	..	..	1	..	..	12	..	..
Charters Towers ..	..	1	1	..	1	1	..	60	50
Childers	1	16	..	1	16	..	100	3,000	..
Cleveland	1	6	4	..	5	4	..	102	23
Gayndah	1	..	1	..	..	..	..	..	..
Gladstone	3	3	2	2	2	2	204	690	508
Gympie	4	6	6	1	4	4	502	713	173
Ingham	5	14	9	5	12	9	165	7,959	475
Ipswich	..	1	1	..	1	1	..	58	58
Logan	9	18	10	8	17	10	235	527	540
Mackay	22	14	17	17	12	15	1,563	2,344	1,948
Marburg	1	1	..	1	1	..	40	40	..
Mareeba	1	1	..	1	1	..	50	69	..
Maroochy	4	1	1	1	1	1	22	124	43
Maryborough ..	3	4	3	3	4	2	160	32	230
Mount Morgan ..	3	3	2	3	3	2	216	183	303
Proserpine	16	17	14	16	16	14	367	1,885	932
Redcliffe	3	2	1	2	2	1	28	80	37
Rockhampton ..	19	23	17	18	20	16	1,318	1,772	1,297
Somerset	6	8	1	4	4	1	1,690	759	102
Southport	1	1	..	1	1	..	62	79	..
Tiaro	56	2	1	56	2	1	1,581	191	157
Townsville	7	6	12	7	4	7	636	969	1,188
Woodford	1	1	1	1	1	1	95	110	228
Total State ..	208	211	185	178	176	152	11,126	30,133	18,715

Table No. 39.

PASTURAGE AND OTHER FODDER CROPS.

Return for Five Years Showing the Area under Pasturage.

—	1931.	1932.	1933.	1934.	1935.
	Acres.	Acres.	Acres.	Acres.	Acres.
Hay	59,601	64,076	92,943	86,477	71,309
Green forage	309,957	392,762	311,462	338,312	379,651
Artificially sown pasture	718,700	732,095	777,706	869,777	822,143
Totals	1,088,258	1,188,933	1,182,111	1,294,566	1,273,103

Table No. 40.

ENSILAGE.

Table for Four Years Showing the Number of Makers and Ensilage Made in the Several Petty Sessions Districts of the State.

Petty Sessions District.	No. of Makers.				Tons.			
	1932.	1933.	1934.	1935.	1932.	1933.	1934.	1935.
Atherton	6	9	6	6	240	617	413	586
Beaudesert	4	6	1	..	213	395	50	..
Biggenden	..	..	..	2	..	..	..	90
Brisbane (North)	2	1	3	2	120	30	160	60
Brisbane (South)	13	11	11	14	885	1,140	1,000	818
Bundaberg	..	..	1	..	..	..	49	..
Caboolture	..	..	1	..	..	..	60	..
Cairns	..	1	..	..	..	10	..	..
Charters Towers	1	3	3	..	8	75	95	..
Chinchilla	..	..	1	..	..	..	40	..
Cleveland	1	1	1	1	50	80	50	50
Clifton	1	1	3	..	80	60	60	..
Dalby	1	..	..	1	30	..	..	113
Dugandan	8	3	5	6	329	240	445	261
Eidsvold	..	..	1	..	..	..	140	..
Esk	1	4	4	5	100	153	315	335
Gatton	1	1	1	..	150	260	250	..
Gayndah	4	5	2	4	205	273	140	145
Gladstone	1	4	..	2	70	75	..	101
Goodna	1	1	1	..	60	280	40	..
Gympie	..	2	..	2	...	70	..	220
Harrisville	3	1	..	1	66	80	..	5
Herberton	..	1	..	..	..	50	..	..
Ingham	1	..	..	..	40	..	..	..
Inglewood	1	1	..	..	90	100	..	..
Ipswich	2	1	3	6	170	60	220	198
Kilcoy	2	2	1	..	60	56	60	..
Kilkivan	..	1	..	..	..	7	..	..
Laidley	3	1	4	2	215	6	200	150
Logan	..	2	..	1	..	95	..	140
Marburg	6	11	4	2	425	324	150	130
Maroochy	5	3	5	2	417	520	642	550
Maryborough	2	2	3	1	130	100	105	150
Mitchell	..	1	..	..	..	2	..	..
Monto	..	1	2	..	..	42	78	..
Mount Morgan	..	1	..	..	..	15	..	..
Nanango	10	11	6	2	472	558	500	108
Oakey — Cooyar	..	..	..	1	..	..	..	20
Oakey — Oakey	..	2	1	3	..	350	120	220
Redcliffe	2	3	2	..	120	300	170	..
Rockhampton	1	1	3	..	12	75	92	..
Roma	2	2	5	1	14	140	198	50
Rosewood	..	1	2	..	..	100	25	..
Southport	3	2	1	3	300	84	50	214
St. Lawrence	..	1	1	..	..	15	20	..
Stanthorpe	..	..	..	1	..	..	..	30
Toogoolawah	1	..	3	..	25	..	110	..
Toowoomba — Helidon	1	..	..	..	50	..	..	..
Toowoomba — Toowoomba	..	..	3	1	..	..	165	10
Townsville	14	11	6	2	649	509	339	20
Warwick	..	2	1	1	..	60	30	100
Wienholt	..	2	4	4	..	150	330	265
Woodford	4	9	8	7	310	584	535	505
Wynnum	4	5	2	..	200	375	120	..
Total State	112	134	115	86	6,305	8,515	7,566	5,644

Value of Ensilage made:—1932, £12,668; 1933, £12,971; 1934, £11,067; 1935, £10,545.

Table No. 41.

GRAIN AND OTHER CROPS—AREAS, 1935.

(For Production see Table 44.)

Divisions.	Grain Crops.							Hay (all Kinds.)					Green Forage.						Potatoes.		Pumpkins.	Cotton.	Sugar-cane.		Arrowroot.	Peanuts.	Tobacco.	Vines.	
			Barley.																										
	Wheat.	Oats.	Malting.	Other.	Maize.	Rye.	Rice.	Wheat.	Oats.	Lucerne.	Other.	Total.	Wheat.	Oats.	Sorghum.	Lucerne.	Other.	Total.	English.	Sweet.			Cut for Crushing.	Stand Over and Unproductive.				Bearing.	Not Bearing.
Moreton Division.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.
Brisbane (North) ..	..	..	..	..	81	..	..	..	14	42	6	62	111	302	803	146	1,531	2,893	146	62	277	8	..	..	..	2	..	256	30
Brisbane (South) ..	..	..	..	..	39	..	..	..	50	60	..	110	111	129	277	59	529	1,105	16	2	27	1	..	..	..	..	..	2	..
Beaudesert	..	3	..	..	4,476	..	..	..	232	2,028	51	2,311	106	2,009	479	1,713	602	4,909	273	63	700	..	..	..	23	..	..	..	..
Caboolture	..	..	..	..	30	..	..	..	..	8	..	8	6	25	247	6	161	445	66	20	29	3	..	..	..	..	20	3	..
Cleveland	..	..	..	..	4	..	..	..	..	1	2	3	4	4	16	..	160	184	12	6	12	..	..	..	..	30	..	2	..
Crow's Nest	204	43	34	..	6,319	..	..	9	4	1,092	13	1,128	628	4,454	481	2,009	2,170	9,742	244	..	182	..	..	..	..	..	..	..	..
Dugandan	14	10	..	..	7,006	..	..	60	48	3,653	166	3,927	115	2,833	1,273	1,174	1,144	6,539	1,313	32	1,074	57	..	..	1	..	..	..	..
Esk	..	..	..	..	1,031	..	..	..	36	412	22	470	29	528	180	353	528	1,618	163	64	107	57	..	..	1	..	..	1	2
Gatton	53	..	..	..	4,824	..	..	213	305	3,984	94	4,596	433	1,752	1,277	763	1,812	6,037	1,409	267	2,685	273	..	..	..	..	..	2	..
Goodna	..	..	..	..	28	..	..	..	8	22	1	31	3	39	46	60	149	297	8	2	1	3	..	..	..	..	..	..	..
Harrisville	120	..	..	..	3,943	..	..	160	456	3,656	463	4,725	62	2,211	842	1,241	950	5,306	316	137	720	14	..	..	1	..	..	..	..
Ipswich	..	..	..	..	620	..	..	..	17	627	53	697	24	517	437	249	321	1,548	114	15	32	120	..	..	..	1	..	..	..
Kilcoy	..	..	..	..	814	..	..	..	6	100	..	106	4	565	34	230	321	1,154	75	65	45	8	..	..	9	..	..	..	..
Laidley	27	..	..	..	6,011	..	..	113	168	5,294	95	5,670	477	1,298	965	380	1,563	4,683	1,205	166	1,254	103	..	..	..	1	..	2	..
Logan	..	..	..	..	376	..	..	2	5	81	5	93	57	90	251	94	776	1,268	688	136	42	..	1,043	520	276	10	..	3	..
Lowood	..	..	..	..	3,500	..	..	..	144	2,140	44	2,328	15	1,404	836	41	1,881	4,177	1,249	166	810	37	..	..	..	..	..	55	16
Marburg	..	..	..	..	2,078	..	..	..	11	915	12	938	94	1,109	1,255	219	2,061	4,738	192	65	127	14	..	..	4	..	..	1	1
Maroochy	..	..	..	..	283	..	..	..	4	30	..	34	23	155	234	37	907	1,356	38	41	2	..	4,155	1,249	33	42	..	..	..
Redcliffe	..	..	..	..	174	..	..	..	..	23	..	23	97	325	743	63	1,413	2,641	200	77	143	..	23	11	..	..	..	..	..
Rosewood	..	..	..	..	2,601	..	..	5	59	2,280	93	2,437	16	1,206	1,238	342	1,290	4,092	203	45	245	22	..	..	..	..	..	..	..
Southport	..	..	..	..	555	..	..	..	2	27	..	29	55	101	183	35	406	780	205	16	15	..	..	..	466	..	..	..	1
Toogoolawah ..	..	..	..	..	2,979	..	..	..	18	2,115	26	2,159	22	1,724	539	1,000	873	4,158	394	194	635	22	..	..	..	..	..	9	..
Woodford	..	..	..	..	528	..	..	..	3	..	..	3	46	495	261	35	277	1,114	58	27	55	..	2	..	12	..	..	1	..
Wynnum	..	..	..	..	1	..	..	..	2	..	1	3	9	31	67	3	249	359	18	7	11	..	..	..	..	1	..	9	1
Oakey–Cooyar ..	104	37	..	7	1,238	..	..	3	18	161	2	184	344	1,112	77	483	772	2,788	157	..	150	..	..	..	..	..	..	..	..
Toowoomba–Helidon	..	..	..	..	1,074	..	..	..	2	946	10	958	121	1,123	549	159	1,235	3,187	446	105	670	22	..	..	..	..	..	3	..
Total Moreton ..	522	93	34	7	50,613	..	..	565	1,612	29,697	1,159	33,033	3,012	25,541	13,590	10,894	24,081	77,118	9,202	1,780	10,050	767	5,223	1,780	826	87	20	349	51
Wide Bay Division.																													
Biggenden	..	..	..	..	411	..	..	..	13	197	30	240	17	1,137	110	126	718	2,108	59	7	70	288	83	26	..	13	..	..	..
Bundaberg	..	..	..	..	294	..	..	..	..	82	10	92	2	110	45	16	469	642	80	23	5	38	20,083	12,474	1	3	26	..	..
Childers	..	..	..	..	18	..	..	..	..	..	..	..	..	..	..	..	34	34	..	..	..	68	9,103	3,649	..	..	..	..	..
Eidsvold	..	..	..	..	274	..	..	13	6	37	18	74	191	517	130	176	507	1,521	42	47	67	1,842	..	..	..	..	..	1	..
Gayndah	..	..	..	..	1,657	..	..	..	5	464	49	518	228	3,304	1,871	563	2,992	8,958	114	48	317	4,261	..	..	..	1	..	..	..
Gin Gin	..	..	..	..	168	..	..	..	5	70	3	78	..	37	36	1	269	343	20	1	1	12	4,941	2,652	1	..	..	..	..
Gympie	..	..	..	..	1,300	5	..	..	19	91	11	121	43	2,102	270	219	2,500	5,134	204	175	78	16	192	89	25	..	..	1	2
Kilkivan	..	..	..	..	260	..	..	..	..	257	42	299	11	253	42	140	215	661	25	6	26	49	..	..	..	..	..	..	..
Maryborough ..	..	..	..	..	81	..	..	15	29	237	47	328	38	45	34	77	344	538	184	5	11	58	3,831	1,681	..	21	..	7	..
Mount Perry ..	..	..	..	..	20	..	..	..	..	7	..	7	..	6	..	..	2	8	4	1	..	43	..	..	..	1	..	..	..
Nanango	187	548	..	..	14,103	..	..	20	206	5,225	127	5,578	618	12,963	3,760	913	5,295	23,549	507	154	658	189	..	..	1	4,208	..	1	..
Tiaro	..	1	..	..	345	..	..	..	15	130	6	151	19	224	29	130	193	595	131	17	15	14	1,588	819	3	1	..	4	2
Wienholt	182	332	3	..	15,405	..	..	21	90	3,960	99	4,170	710	13,090	1,965	3,891	5,673	25,329	1,433	82	686	1,369	..	..	3	3,792	..	..	..
Total Wide Bay ..	369	881	3	..	34,336	5	..	69	388	10,757	442	11,656	1,877	33,788	8,292	6,252	19,211	69,420	2,803	566	1,934	8,247	39,821	21,390	34	8,040	26	14	4
Port Curtis Division.																													
Banana	578	5	..	..	..	..	..	51	25	34	6	116	47	109	47	36	104	343	12	..	4	1,593	..	..	..	..	..	1	..
Gladstone	..	..	..	..	834	..	..	14	11	213	58	296	52	166	121	103	461	903	375	24	107	278	..	..	..	11	62	6	..
Monto	..	..	..	..	1,056	..	..	..	2	987	..	989	34	1,337	3	1,673	711	3,758	80	1	100	7,898	..	..	..	..	..	..	..
Mount Morgan ..	360	..	..	..	272	..	..	81	31	67	7	186	127	149	62	22	500	860	30	1	52	33,313	..	..	..	13	..	..	..
Rockhampton ..	..	..	..	..	806	..	..	26	99	381	283	789	10	91	170	106	376	753	144	63	96	1,484	..	..	..	408	1	43	16
St. Lawrence ..	..	..	..	..	12	..	..	..	..	106	..	106	..	..	..	10	..	10	5	2	2	45	67	24	..	..	..	..	..
Total Port Curtis..	938	5	..	..	2,980	..	..	172	168	1,788	354	2,482	270	1,852	403	1,950	2,152	6,627	646	91	361	44,611	67	24	..	432	63	50	16

Table No. 41—*continued.*

GRAIN AND OTHER CROPS—AREAS, 1935. (For Production see Table 44.)

Divisions.	GRAIN CROPS.							HAY (ALL KINDS).					GREEN FORAGE.						POTATOES.		PUMPKINS.	COTTON.	SUGAR-CANE.		ARROWROOT.	PEANUTS.	TOBACCO.	VINES.	
			Barley.																										
	Wheat.	Oats.	Malting.	Other.	Maize.	Rye.	Rice.	Wheat.	Oats.	Lucerne.	Other.	Total.	Wheat.	Oats.	Sorghum.	Lucerne.	Other.	Total.	English.	Sweet.			Cut for Crushing.	Stand Over and Unproductive.				Bearing.	Not Bearing.
Edgecumbe Division.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.
Ayr	..	..	..	..	..	..	..	..	..	..	..	..	..	..	24	..	56	80	9	..	3	..	22,455	9,328	..	..	10	..	..
Bowen	..	..	..	..	54	..	..	..	..	..	..	..	..	2	142	..	203	347	88	1	371	17	119	24	..	..	139	..	..
Cape River	..	..	..	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	12	3	12	..	..	..	..	..	..	1	..
Charters Towers	..	..	..	..	..	..	..	..	..	1	..	1	..	..	12	10	2	24	2	2	1	..	..	..	..	..	4	14	..
Collinsville	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	15	..	..
Mackay	..	..	..	..	76	..	..	..	..	..	..	..	..	..	1	1	346	348	23	2	14	113	58,531	24,761	..	4	87	1	..
Proserpine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	78	78	1	1	..	..	8,728	5,159	..	..	..	..	..
Ravenswood	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..
Townsville	..	..	..	..	1	..	..	..	..	..	15	15	..	..	19	..	54	73	66	6	47	..	203	51	..	1	99	..	..
Total Edgecumbe	..	..	..	..	138	..	..	..	..	1	15	16	..	2	198	11	739	950	201	15	448	133	90,036	39,323	..	5	357	16	..
Rockingham Division.																													
Atherton	..	..	..	..	18,865	..	..	3	29	56	4	92	44	96	24	6	701	871	13	27	7	6	..	..	..	525	15	..	..
Cairns	..	..	..	..	31	10	..	..	..	..	..	..	..	..	2	..	381	383	8	13	2	2	29,896	4,302	..	..	20	..	..
Cardwell	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	64	64	7	3	3	6	7,792	1,816	..	2	..	..	..
Chillagoe	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Herberton	..	..	..	..	209	..	..	18	5	..	..	23	9	18	..	1	22	50	15	1	..	..	..	..	..	1	18	13	2
Ingham	..	..	..	..	22	..	..	..	..	..	..	..	..	..	7	..	9	16	69	1	7	..	22,004	12,441	..	..	4	..	..
Innisfail	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	8	..	..	..	..	27,236	2,832	..	..	..	..	..
Mareeba	..	1	..	..	94	..	..	..	..	..	..	..	..	6	19	6	20	51	11	1	7	146	..	..	..	240	2,053	..	..
Total Rockingham	..	1	..	..	19,025	10	..	21	34	56	4	115	53	120	52	13	1,205	1,443	123	46	26	160	86,928	21,391	..	768	2,110	13	2
*York Peninsula Division.**																													
Coen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cook	..	..	..	..	41	..	..	..	..	..	..	..	..	..	..	..	2	2	2	1	3	..	..	..	..	134	5	..	..
Douglas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6,440	2,277	..	..	..	..	..
Somerset	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total York Peninsula	..	..	..	..	41	..	..	..	..	..	..	..	..	..	..	..	2	2	2	1	3	..	6,440	2,277	..	134	5	..	..
Carpentaria Division.																													
Burke	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Camooweal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cloncurry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Croydon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Etheridge	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hughenden	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	2	..	..	..	..	..	..	..	..
Julia Creek	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mount Isa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Norman	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Richmond	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Carpentaria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	2	..	..	..	..	..	..	..	..
Central-Western Division.																													
Boulia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diamantina	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Isisford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Jundah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Windorah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Winton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Central-Western	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Table No. 41—*continued.*

GRAIN AND OTHER CROPS—AREAS, 1935. (For Production see Table 44.)

Divisions.	GRAIN CROPS.							HAY (ALL KINDS).					GREEN FORAGE.						POTATOES.		PUMPKINS.	COTTON.	SUGAR-CANE.		ARROWROOT.	PEANUTS.	TOBACCO.	VINES.	
			Barley.																										
	Wheat.	Oats.	Malting.	Other.	Maize.	Rye.	Rice.	Wheat.	Oats.	Lucerne.	Other.	Total.	Wheat.	Oats.	Sorghum.	Lucerne.	Other.	Total.	English.	Sweet.			Cut for Crushing.	Stand Over and Unproductive.				Bearing.	Not Bearing.
South-Western Division.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.
Adavale	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Augathella	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bollon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Charleville	..	..	..	..	..	..	..	..	..	..	..	..	5	..	..	..	12	17	..	..	..	..	..	..	..	..	..	3	..
Cunnamulla	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
Dirranbandi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eulo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hungerford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Quilpie	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St. George	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Thargomindah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total South-Western	..	..	..	..	..	..	..	..	..	..	..	..	5	..	..	..	12	17	..	..	..	..	..	..	..	..	..	5	..
Central Division.																													
Alpha	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Aramac	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Barcaldine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..
Blackall	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Clermont	..	..	..	..	..	..	..	..	..	..	25	25	..	..	..	..	..	..	11	..	..	71	..	..	..	..	..	..	..
Emerald	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	133	..	..	..	..	..	4	..
Longreach	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Muttaburra	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Springsure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	109	..	..	..	..	..	..	..
Tambo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..	..	..	..
Taroom	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	12	14	..	..	..	25	..	..	..	..	..	..	..
Total Central	..	..	..	..	..	..	..	..	..	..	25	25	2	..	..	..	12	14	13	..	3	338	..	..	..	..	..	4	..
Maranoa Division.																													
Mitchell	1,704	..	..	..	..	..	..	62	..	..	..	62	..	..	..	..	..	..	..	..	..	17	..	..	..	..	..	..	..
Roma	20,668	..	..	29	108	..	..	439	20	..	2	461	1,350	191	113	15	565	2,234	1	..	1	334	..	..	..	..	..	496	42
Surat	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Yeulba	..	..	..	..	..	..	..	..	..	..	..	..	10	..	..	1	2	13	1	..	3	..	..	..	..	..	..	2	..
Total Maranoa	22,372	..	..	29	108	..	..	501	20	..	2	523	1,360	191	113	16	567	2,247	2	..	4	351	..	..	..	..	..	498	42
Downs Division.																													
Allora..	18,799	431	503	235	5,558	26	..	..	18	2,381	61	2,460	4,799	3,015	199	3,524	5,228	16,765	2	..	19	..	..	..	..	..	..	..	..
Chinchilla	19	..	..	..	80	..	..	2	..	5	..	7	330	603	92	10	699	1,734	..	..	..	112	..	..	..	..	..	..	..
Clifton	31,763	481	1,981	421	9,339	..	..	93	289	4,393	93	4,868	8,655	4,611	6,339	5,287	3,206	28,098	8	..	7	30	..	..	..	..	..	2	..
Condamine	877	20	..	..	69	..	..	41	..	2	..	43	357	149	59	1	314	880	2	..	1	74	..	..	..	..	..	6	..
Dalby..	19,330	989	44	95	1,207	..	..	..	9	213	..	222	5,304	9,005	786	355	6,859	22,309	16	..	118	101	..	..	..	..	..	1	..
Goondiwindi	26	..	..	..	5	..	..	41	..	4	4	49	58	..	19	103	72	252	9	..	5	..	..	..	..	..	..	2	..
Inglewood	883	43	22	12	213	..	..	..	..	309	62	371	1,143	834	961	105	616	3,659	10	..	25	5	..	..	..	..	337	..	..
Killarney	6,891	186	56	97	5,926	20	..	..	..	1,060	41	1,101	366	2,678	32	2,048	1,359	6,483	45	..	12	..	..	..	..	..	..	..	..
Oakey	46,097	1,633	217	260	7,370	84	..	44	3	2,453	465	2,965	13,543	16,096	2,056	4,755	15,266	51,716	121	1	288	14	..	..	..	..	..	7	..
Pittsworth	65,470	726	647	248	3,020	..	..	20	47	1,396	212	1,675	12,506	4,344	7,366	5,623	6,826	36,665	..	..	8	..	..	..	..	..	..	..	..
Stanthorpe	..	..	..	..	60	..	..	9	42	118	..	169	64	186	10	..	222	482	148	..	3	..	..	..	..	..	25	1,018	321
Texas	210	..	..	28	113	..	..	..	..	15	12	27	124	92	12	253	115	596	3	..	1	4	..	..	..	..	174	..	..
Toowoomba	8,422	507	701	291	4,824	..	..	96	135	4,152	81	4,464	5,823	8,023	762	5,948	8,956	29,512	174	2	7	..	..	..	..	6	..	14	..
Warwick	16,643	827	77	372	12,345	16	..	115	163	3,979	781	5,038	2,918	5,705	1,080	6,127	6,832	22,662	87	..	43	..	..	..	..	..	..	26	9
Total, Downs	215,430	5,843	4,248	2,059	50,129	146	..	461	706	20,480	1,812	23,459	55,990	55,341	19,778	34,139	56,570	221,813	625	3	537	340	..	..	..	6	536	1,076	330
Grand Total, 1935	239,631	6,823	4,285	2,095	157,370	161	..	1,789	2,928	62,779	3,813	71,309	62,569	116,835	42,421	53,275	104,551	379,651	13,620	2,503	13,368	54,947	228,515	86,185	860	9,472	3,117	2,025	445
Grand Total, 1934	221,729	4,566	6,600	3,004	160,607	75	..	3,472	3,426	75,538	4,041	86,477	46,184	111,995	40 658	44,905	94,570	338,312	11,666	2,271	12,272	43,397	218,426	85,494	835	7,501	2,081	1,517	409
Increase 1935	17,902	2,257	..	..	..	86	..	..	..	..	..	..	16,385	4,840	1,763	8,370	9,981	41,339	1,954	232	1,096	11,550	10,089	691	25	1,971	1,036	508	36
Decrease, 1935	..	..	2,315	909	3,237	..	..	1,683	498	12,759	228	15,168	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Table No. 42.

FRUIT CROPS—AREAS, 1935. (For Production see Table 45.)

Divisions.	APPLES.		APRICOTS.		BANANAS.		CHERRIES.	CUSTARD APPLES.		FIGS.	GOOSEBERRIES (CAPE.)	LEMONS.		MANGOES.		NECTARINES.		ORANGES AND MANDARINS.		PASSION FRUIT.	PAPAWS.		PEACHES.		PEARS.		PERSIMMONS.	PINEAPPLES.		PLUMS.		QUINCES.	STRAWBERRIES.	WATER MELONS.	SMALL ORCHARDS.
	Bearing.	Not Bearing.	Bearing.	Not Bearing.	Bearing.	Not Bearing.		Bearing.	Not Bearing.			Bearing.	Not Bearing.	Bearing.	Not Bearing.	Bearing.	Not Bearing.	Bearing.	Not Bearing.		Bearing.	Not Bearing.	Bearing.	Not Bearing.	Bearing.	Not Bearing.		Bearing.	Not Bearing.	Bearing.	Not Bearing.				
	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.
Moreton Division.																																			
Brisbane (North) ..	..	..	..	..	177	103	..	3	1	..	..	2	..	5	1	..	..	8	7	7	202	164	40	20	..	..	1	300	64	2	..	..	9	93	8
Brisbane (South) ..	..	..	..	..	9	3	..	18	1	10	1	1	2	1	..	..	..	6	..	1	86	16	..	..	..	..	..	192	25	..	..	..	..	..	4
Beaudesert	..	..	..	..	12	..	..	..	..	..	..	1	..	..	..	..	..	12	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Caboolture	..	..	..	..	163	86	..	..	..	..	1	1	5	..	..	..	..	67	31	7	..	..	..	..	..	..	..	497	160	..	..	..	4	..	..
Cleveland	..	..	..	..	171	51	..	81	6	..	..	8	10	4	..	..	..	11	4	21	71	30	..	..	..	..	1	438	103	..	..	..	74	..	..
Crow's Nest	..	..	..	..	..	..	..	..	..	..	..	14	8	..	..	..	..	19	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dugandan	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Esk	..	..	..	..	23	4	..	..	..	..	..	5	4	..	..	..	..	52	7	4	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Gatton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	22	18	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	9
Goodna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Harrisville	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ipswich	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	11	..	..	..	..	..	..	..	..	..	34	..	..	..	..	..	..	2
Kilcoy	..	..	..	..	48	3	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Laidley	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	2	1	..	..	..	..	..	..
Logan	..	..	..	..	534	121	..	47	..	..	..	2	2	10	..	..	..	30	2	43	4	3	..	..	..	..	1	41	10	..	..	..	1	..	..
Lowood	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	24	..	..	..	..	..	..	..	..	..	10	..	..	..	..	..	..	..
Marburg	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	14	1	..	..	..	..	..	..
Maroochy	..	..	..	..	1,520	300	..	3	..	..	..	3	6	1	..	..	..	796	143	4	36	19	..	..	..	..	..	1,582	515	..	..	..	36	..	13
Redcliffe	..	..	..	..	174	64	..	..	..	..	..	..	..	1	..	..	..	12	3	..	1	2	..	..	..	..	..	70	28	..	..	..	..	17	2
Rosewood	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
Southport	..	..	..	..	2,139	443	..	2	1	..	..	1	..	..	..	..	..	52	13	9	16	10	..	..	..	..	..	18	3	..	..	..	1	4	7
Toogoolawah ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Woodford	..	..	..	..	461	50	..	..	..	..	..	12	..	1	..	..	..	9	1	..	1	..	2	..	..	..	..	23	3	1	..	..	..	..	..
Wynnum	..	..	..	..	61	4	..	1	..	..	..	..	..	..	..	..	..	..	..	..	18	8	..	..	..	..	..	66	27	..	..	..	5	..	..
Oakey–Cooyar ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Toowoomba–Helidon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Moreton ..	..	..	..	..	5,499	1,233	..	155	9	10	3	51	37	24	1	..	..	1,143	243	96	438	252	42	20	..	..	3	3,289	940	4	..	..	130	114	51
Wide Bay Disivion.																																			
Biggenden	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	4	..	..	..	..	..	..	..	..	..	5	1	..	..	..	..	..	..
Bundaberg	..	..	..	..	68	14	..	4	..	..	..	..	..	1	..	..	..	41	24	..	1	..	..	..	..	..	..	31	26	..	..	..	2	..	..
Childers	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	32	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eidsvold	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Gayndah	..	..	..	..	9	3	..	..	..	..	..	26	6	..	1	..	..	130	51	..	1	..	..	..	..	..	..	6	3	..	..	..	..	..	..
Gin Gin	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	4	..	..	..	..	..	..	..	..	..	8	..	..	..	..	..	..	26
Gympie	..	..	..	..	809	125	..	..	..	..	..	4	1	4	2	..	..	39	7	5	7	6	..	..	..	..	..	485	150	..	..	..	1	..	4
Kilkivan	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Maryborough ..	..	..	..	..	35	4	..	2	..	..	..	..	..	2	1	..	..	410	77	2	1	..	..	..	..	..	..	95	29	..	..	..	..	..	2
Mount Perry ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nanango	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Tiaro	..	..	..	..	39	4	..	1	..	..	..	..	..	1	..	..	..	12	3	..	22	..	..	..	..	..	..	37	3	..	..	..	..	..	..
Wienholt	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	6	1	..	..	..	1	..	..	..	..	1	..	1	1	..	..	..	..
Total Wide Bay ..	..	..	..	..	962	152	..	7	..	..	..	31	7	8	4	..	..	683	170	7	32	6	1	..	..	..	..	668	212	1	1	..	3	..	34
Port Curtis Division.																																			
Banana	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gladstone	..	..	..	..	39	12	..	2	..	..	..	1	..	2	..	..	..	38	5	3	73	36	..	..	..	..	..	14	6	..	..	..	..	7	31
Monto	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Mount Morgan ..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	14	1	..	..	..	..	..	..	..	..	8	..	..	..	..	..	..	2
Rockhampton ..	..	..	..	..	195	47	..	10	2	..	..	11	1	16	1	..	..	196	38	9	25	10	..	..	..	..	..	194	23	..	..	..	2	6	2
St. Lawrence ..	..	..	..	..	8	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	7	..	..	..	..	..	..
Total Port Curtis	..	..	..	..	242	64	..	12	2	..	..	12	1	20	1	..	..	249	44	12	98	46	..	..	..	..	..	226	36	..	..	..	2	13	35

Table No. 42—*continued*.

FRUIT CROPS—AREAS, 1935. (For Production see Table 45.)

Division.	APPLES.		APRICOTS.		BANANAS.		CHERRIES.	CUSTARD APPLES.		FIGS.	GOOSEBERRIES (CAPE.)	LEMONS.		MANGOES.		NECTARINES.		ORANGES AND MANDARINS.		PASSION FRUIT.	PAPAWS.		PEACHES.		PEARS.		PERSIMMONS.	PINEAPPLES.		PLUMS.		QUINCES.	STRAWBERRIES.	WATER MELONS.	SMALL ORCHARDS.
	Bearing.	Not Bearing.	Bearing.	Not Bearing.	Bearing.	Not Bearing.		Bearing.	Not Bearing.			Bearing.	Not Bearing.	Bearing.	Not Bearing.	Bearing.	Not Bearing.	Bearing.	Not Bearing.		Bearing.	Not Bearing.	Bearing.	Not Bearing.	Bearing.	Not Bearing.		Bearing.	Not Bearing.	Bearing.	Not Bearing.				
	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.
Edgecumbe Division.																																			
Ayr	..	..	..	..	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	..	..	..	..	..	..
Bowen	..	..	..	..	11	..	..	..	..	..	..	2	..	53	20	..	..	32	6	..	..	..	..	..	..	..	..	204	30	..	..	..	..	2	2
Cape River	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	12	4	..	..	..	1	1	..	..	..	..	..	..	..	..	..	5	..
Charters Towers	..	..	..	..	..	6	..	..	..	..	..	1	..	1	..	..	..	57	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14
Collinsville	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mackay	..	..	..	..	35	15	..	2	1	..	..	2	..	15	2	..	..	34	7	..	2	6	..	..	..	..	..	12	9	..	..	..	..	2	2
Proserpine	..	..	..	..	..	..	..	..	..	..	..	..	..	14	..	..	..	18	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ravenswood	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Townsville	..	..	..	..	36	5	..	5	..	..	..	3	1	7	5	..	..	32	16	..	19	1	..	..	..	..	..	89	7	..	..	..	4	4	2
Total Edgecumbe	..	..	..	..	112	26	..	7	1	..	..	9	1	90	27	..	..	191	34	..	21	7	1	1	..	..	..	309	46	..	..	..	4	13	23
Rockingham Division.																																			
Atherton	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cairns	..	..	..	..	151	7	..	..	..	..	..	..	..	..	..	..	..	25	11	..	1	..	..	..	..	..	..	45	..	..	..	..	..	6	..
Cardwell	..	..	..	..	27	13	..	..	..	..	..	..	..	..	..	..	..	128	50	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..
Chillagoe	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Herberton	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	1	..	..	..	1	..	..	1	1	..	..	..	1
Ingham	..	..	..	..	1	..	..	..	..	..	..	..	..	9	..	..	..	17	5	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Innisfail	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mareeba	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..
Total Rockingham	1	..	..	..	186	20	..	..	..	..	..	..	..	9	..	..	..	178	68	..	1	..	2	..	..	..	1	50	..	1	1	..	..	6	1
York Peninsula Division.																																			
Coen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cook	..	..	..	..	3	1	..	..	..	..	..	..	..	..	..	..	..	27	2	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..
Douglas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Somerset	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Total York Peninsula	..	..	..	..	3	1	..	..	..	..	..	..	..	1	..	..	..	27	2	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..
Carpentaria Division.																																			
Burke	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Camooweal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cloncurry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Croydon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Etheridge	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Hughenden	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..
Julia Creek	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mount Isa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Norman	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Richmond	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Carpentaria	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2
Central-Western Division.																																			
Boulia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diamantina	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Isisford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Jundah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Windorah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Winton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Central-Western	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Divisions.	Apples.		Apricots.		Bananas.		Cherries.	Custard Apples.		Figs.	Gooseberries (Cape.)	Lemons.		Mangoes.		Nectarines.		Oranges and Mandarins.		Passion Fruit.	Papaws.		Peaches.		Pears.		Persimmons.	Pineapples.		Plums.		Quinces.	Strawberries.	Water Melons.	Small Orchards.
	Bearing.	Not Bearing.	Bearing.	Not Bearing.	Bearing.	Not Bearing.		Bearing.	Not Bearing.			Bearing.	Not Bearing.	Bearing.	Not Bearing.	Bearing.	Not Bearing.	Bearing.	Not Bearing.		Bearing.	Not Bearing.	Bearing.	Not Bearing.	Bearing.	Not Bearing.		Bearing.	Not Bearing.	Bearing.	Not Bearing.				
South-Western Division:	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.
Adavale	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Augathella	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Bollon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Charleville	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	10	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Cunnamulla	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Dirranbandi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eulo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hungerford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Quilpie	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St. George	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Thargomindah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total South-Western	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	18	3	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	5
Central Division.																																			
Alpha	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Aramac	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Barcaldine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Blackall	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Clermont	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Emerald	..	..	..	..	..	..	..	..	..	..	..	4	..	..	..	..	..	33	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Longreach	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	18
Muttaburra	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Springsure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tambo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Taroom	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Central	..	..	..	..	..	..	..	..	..	..	..	4	..	..	..	..	..	46	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	18
Maranoa Division.																																			
Mitchell	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Roma	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	39	10	..	..	..	2	2	..	..	..	..	..	1	..	..	..	..	..
Surat	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Yeulba	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Maranoa	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	40	10	..	..	..	2	2	..	..	..	..	..	1	..	..	..	..	..
Downs Division.																																			
Allora	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	22	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chinchilla	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Clifton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Condamine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dalby	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Goondiwindi	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Inglewood	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Killarney	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Oakey	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Pittsworth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stanthorpe	3,261	1,972	58	47	..	..	10	..	..	..	..	..	..	..	..	14	..	..	..	..	..	..	1,284	327	175	42	..	..	..	965	256	1	..	..	..
Texas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Toowoomba	2	..	9	1	..	..	..	..	..	..	..	5	1	..	..	..	..	16	4	..	..	..	6	1	1	..	..	..	..	4	1	..	1	..	5
Warwick	149	67	19	9	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	17	3	7	..	..	..	..	23	2	..	..	..	7
Total Downs	3,412	2,039	87	57	..	..	10	..	..	..	..	7	1	..	..	15	..	53	13	..	..	..	1,308	331	183	42	..	..	..	992	259	1	1	..	21
Grand Total, 1935	3,413	2,039	88	57	7,004	1,496	10	181	12	10	3	117	47	152	33	15	..	2,635	587	115	590	311	1,357	354	183	42	4	4,545	1,234	999	261	1	140	149	190
Grand Total, 1934	3,451	1,922	109	53	7,027	3,296	6	200	13	17	21	105	34	176	35	34	..	2,836	585	120	585	261	1,397	397	204	41	6	4,603	981	1,001	294	1	138	189	377
Increase, 1935	..	117	..	4	..	..	4	..	..	..	..	12	13	..	..	..	..	..	2	..	5	50	..	..	..	1	..	..	253	..	..	..	2	..	..
Decrease, 1935	38	..	21	..	23	1,800	..	19	1	7	18	..	..	24	2	19	..	201	..	5	..	..	40	43	21	..	2	58	..	2	33	..	..	40	187

Table No. 43.

VEGETABLE AND MISCELLANEOUS CROPS, AREAS; AREA UNDER CROP, &c., 1935. (For Production see Table 46.)

Divisions.	VEGETABLES.										MISCELLANEOUS CROPS.														TOTAL AREAS, &c.				
	Beans.					Peas.						Coffee.																	
	Green.	Dried.	Cabbages and Cauliflowers.	Cucumbers.	Onions.	Green.	Dried.	Tomatoes.	Turnips.	Market Gardens.	Canary Seed.	Bearing.	Not Bearing.	Cocoanuts.	Cow Peas.	Grass Seed.	Linseed.	Lucerne Seed.	Mangel Wurzel.	Millet (Broom).	Millet (Seed.)	Panicum Seed.	Sunflower Seed.	Other.	Total Extent of Land under Crop.	Land in Fallow, Lying Idle, &c.	Total Extent of Land under Cultivation.	Total Extent of Land under Permanent Pasture with Artifically Sown Grasses.	Total Area of Petty Sessions Districts.
Moreton Division.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Sq. mls.
Brisbane (North) ..	148	5	262	37	..	171	2	380	5	214	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6,258	678	6,936	1,560	336
Brisbane (South) ..	8	..	52	8	..	12	..	64	8	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,903	349	2,252	49	213
Beaudesert	1	..	..	..	..	..	..	..	4	..	..	..	..	..	..	..	..	..	14	..	..	..	..	..	12,803	1,997	14,800	18,615	968
Caboolture	1	..	3	4	..	..	..	15	..	5	..	..	..	..	..	..	..	..	2	..	..	..	..	..	1,676	19	1,695	427	304
Cleveland	110	..	233	105	..	18	..	666	2	84	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2,555	480	3,035	19	200
Crow's Nest	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17,944	2,455	20,399	6,058	365
Dugandan	44	..	26	18	..	16	1	29	8	16	..	..	..	..	..	..	..	..	50	3	..	..	..	..	20.191	1,957	22,148	6,105	522
Esk	1	..	2	..	..	2	..	3	6	..	..	..	..	..	..	..	..	..	12	..	..	..	..	..	3,641	830	4,471	3,135	563
Gatton	1	..	21	..	456	..	..	1	3	12	..	..	..	..	..	9	..	..	11	..	..	..	..	..	20,710	2,754	23,464	3,995	504
Goodna	..	..	2	1	1	..	..	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	378	120	498	58	61
Harrisville	6	1	..	1	3	3	1	14	..	4	..	..	..	..	..	..	..	..	47	..	..	..	..	..	15,356	2,656	18,012	1,685	239
Ipswich	3	..	1	..	..	6	..	3	..	7	..	..	..	..	..	..	..	..	1	..	..	..	..	..	8,216	640	8,856	30	167
Kilcoy	..	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	21	..	..	..	..	..	2,353	414	2,767	2,919	305
Laidley	3	..	2	..	293	3	..	8	2	..	..	..	..	..	..	..	..	..	58	106	..	..	..	..	19,605	2,657	22,262	1,047	222
Logan	37	..	90	6	..	104	..	89	4	24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5,662	493	6,155	1,890	239
Lowood	..	..	1	1	161	..	..	..	7	..	..	..	..	..	..	..	..	..	54	..	..	..	..	..	12,597	2,267	14,864	303	208
Marburg	4	..	..	..	2	20	1	26	..	1	..	..	..	..	..	..	..	..	6	..	..	..	..	..	8,235	1,033	9,268	184	53
Maroochy	162	..	1	9	..	18	..	12	..	5	..	2	..	..	..	..	..	..	..	..	..	..	..	..	12,417	1,709	14,126	57,871	702
Redcliffe	6	1	49	5	..	27	..	32	..	36	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3,822	224	4,046	730	252
Rosewood	..	..	..	..	..	..	..	..	..	10	..	..	..	..	..	3	..	..	14	..	..	..	..	..	9,676	3,462	13,138	13	264
Southport	13	1	9	1	..	8	4	4	2	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4,836	319	5,155	40,321	502
Toogoolawah ..	..	..	..	..	22	..	..	..	1	..	..	..	..	..	..	..	..	..	38	..	..	..	..	..	10,612	950	11,562	1,242	801
Woodford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2,364	275	2,639	34,333	202
Wynnum	14	..	2	2	..	24	..	70	2	18	..	..	..	..	..	..	..	..	..	..	..	..	..	..	732	86	818	..	28
Oakey-Cooyar ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	4,669	1,077	5,746	10,015	225
Toowoomba-Helidon	..	..	1	..	5	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6,485	438	6,923	4,085	252
Total Moreton ..	562	8	757	198	943	432	9	1,420	58	514	..	2	..	..	..	12	..	..	330	109	..	..	..	..	210,696	30,339	241,035	201,684	8,688
Wide Bay Division.																													
Biggenden	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	3,319	1,458	4,777	33,787	653
Bundaberg	2	..	5	..	..	5	..	1	..	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..	33,998	4,844	38,842	525	1,460
Childers	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12,905	2,662	15,567	259	647
Eidsvold	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	25	..	..	1	..	..	..	..	..	3,903	1,575	5,478	13,617	2,383
Gayndah	..	1	..	..	..	34	41	1	..	..	..	..	..	..	31	70	..	..	1	9	..	..	..	..	16,298	5,645	21,943	40,154	3,727
Gin Gin	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8,257	3,422	11,679	441	1,056
Gympie	523	..	6	3	..	8	2	10	..	7	..	12	4	..	..	..	..	..	2	..	..	..	..	..	9,568	1,257	10,825	86,699	1,634
Kilkivan	2	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,331	722	2,053	1,236	333
Maryborough ..	3	..	6	1	..	10	..	3	5	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7,437	1,484	8,921	1,342	1,697
Mount Perry ..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	88	132	220	220	868
Nanango	..	..	..	..	..	..	..	..	..	6	20	..	..	..	133	10	..	..	..	..	..	..	..	..	49,854	10,515	60,369	50,368	1,755
Tiaro	31	..	2	1	..	5	..	14	6	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	3,870	652	4,522	532	2,607
Wienholt	13	3	3	..	61	26	36	2	..	2	..	..	..	..	60	..	..	..	88	..	..	..	..	..	53,092	8,342	61,434	97,805	2,269
Total Wide Bay ..	574	4	22	5	61	88	79	34	11	33	20	12	4	..	224	105	..	..	97	9	..	..	..	..	203,920	42,710	246,630	326,985	21,089
Port Curtis Division.																													
Banana	..	..	5	..	2	..	..	6	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2,671	604	3,275	90	1,875
Gladstone	11	..	6	2	..	11	..	225	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3,423	1,475	4,898	25,559	3,457
Monto	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13,883	2,848	16,731	39,808	1,773
Mount Morgan ..	11	..	3	1	..	12	..	25	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	35,169	2,422	37,591	19,257	3,246
Rockhampton ..	19	..	16	2	2	19	..	47	3	67	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5,566	1,810	7,376	35,599	17,752
St. Lawrence ..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	305	89	394	179	7,129
Total Port Curtis	41	..	30	5	4	42	..	303	7	77																			

Divisions.	VEGETABLES.										MISCELLANEOUS CROPS.														TOTAL AREAS, &c.				
	Beans.					Peas.						Coffee.																	
	Green.	Dried.	Cabbages and Cauliflowers.	Cucumbers.	Onions.	Green.	Dried.	Tomatoes.	Turnips.	Market Gardens.	Canary Seed.	Bearing.	Not Bearing.	Cocoanuts.	Cow Peas.	Grass Seed.	Linseed.	Lucerne Seed.	Mangel Wurzel.	Millet (Broom).	Millet (Seed.)	Panicum Seed.	Sunflower Seed.	Other.	Total Extent of Land under Crop.	Land in Fallow, Lying Idle, &c.	Total Extent of Land under Cultivation.	Total Extent of Land under Permanent Pasture with Artifically Sown Grasses.	Total Area of Petty Sessions Districts.
Edgecumbe Division.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Sq. mls.
Ayr	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	31,919	10,152	42,071	..	2,103
Bowen	1	..	2	69	..	..	..	1,167	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2,768	1,955	4,723	..	1,900
Cape River	..	..	3	..	..	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	67	20	87	..	8,083
Charters Towers ..	2	..	4	1	..	1	..	1	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	143	6	149	1	9,921
Collinsville	..	..	..	..	..	..	..	4	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	29	..	29	..	6,310
Mackay	3	..	3	1	..	1	..	11	..	5	..	..	..	..	..	..	..	..	1	..	..	..	..	..	84,131	21,289	105,420	..	8,003
Proserpine	..	..	..	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14,004	1,979	15,983	..	829
Ravenswood ..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	8	20	..	1,152
Townsville	7	..	13	7	..	..	..	87	..	34	..	..	..	..	..	..	..	..	..	..	..	..	..	..	946	391	1,337	..	2,619
Total Edgecumbe	13	..	25	78	..	2	..	1,276	..	63	..	..	..	..	..	..	..	..	1	..	..	..	..	..	134,019	35,800	169,819	1	40,920
Rockingham Division.																													
Atherton	..	..	..	..	..	1	..	..	..	26	..	..	..	..	17	..	..	..	..	..	..	..	..	..	20,271	291	20,562	61,018	682
Cairns	..	..	4	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	34,922	7,987	42,909	688	842
Cardwell	5	..	..	..	..	..	..	28	1	..	..	..	..	..	17	..	..	..	..	..	..	80	..	..	10,049	1,823	11,872	210	1,057
Chillagoe	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	..	8,667
Herberton	..	..	2	..	..	..	..	..	1	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	348	214	562	10,475	5,345
Ingham	..	..	..	..	..	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	34,601	3,105	37,706	70	3,277
Innisfail	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	30,076	8,760	38,836	744	572
Mareeba	1	..	3	..	..	..	..	10	..	..	..	..	..	..	37	..	..	..	..	..	..	..	..	..	2,664	2,422	5,086	3,688	2,842
Total Rockingham	6	..	9	..	..	1	..	43	2	35	..	..	..	..	71	..	..	..	..	..	..	80	..	..	132,933	24,602	157,535	76,893	23,284
York Peninsula Division.																													
Coen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	95,396
Cook	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	224	101	325	..	23,921
Douglas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8,717	2,170	10,887	3,178	787
Somerset	..	..	..	..	..	..	..	..	..	10	..	..	..	320	..	..	..	..	..	..	..	..	..	..	332	..	332	..	4,586
Total York Peninsula	..	..	..	..	..	..	..	1	..	10	..	..	..	320	..	..	..	..	..	..	..	..	..	..	9,273	2,271	11,544	3,178	54,690
Carpentaria Division.																													
Burke	..	..	..	..	..	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..	5	..	18,228
Camooweal	..	..	..	..	..	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..	5	..	10,246
Cloncurry	..	..	..	..	..	..	..	..	..	14	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14	4	18	..	39,468
Croydon	..	..	..	..	..	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	4	..	6,880
Etheridge	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	32	36	..	19,640
Hughenden	1	..	1	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	20	21	41	..	9,944
Julia Creek	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10,647
Mount Isa	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	3	..	1,395
Norman	..	..	..	..	..	..	..	..	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	6	12	..	25,570
Richmond	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	13,354
Total Carpentaria	1	..	1	..	1	1	..	1	..	38	..	..	..	..	..	..	..	..	..	..	..	..	..	..	62	63	125	..	155,372
Central-Western Division.																													
Boulia	..	..	..	..	..	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	2	7	..	21,027
Diamantina	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	22,684
Isisford	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	5	..	7,929
Jundah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10,977
Windorah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17,822
Winton	..	..	..	..	..	..	..	..	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	..	8	..	23,546
Total Central-Western	..	..	..	..	..	..	..	..	..	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	5	20	..	103,595

Table No. 43—*continued.*

Vegetable and Miscellaneous Crops, Areas; Area under Crops, &c.; 1935. (For Production see Table 46.)

Divisions.	Vegetables.										Miscellaneous Crops.														Total Areas, &c.				
	Beans.					Peas.						Coffee.																	
	Green.	Dried.	Cabbages and Cauliflowers.	Cucumbers.	Onions.	Green.	Dried.	Tomatoes.	Turnips.	Market Gardens.	Canary Seed.	Bearing.	Not Bearing.	Cocoanuts.	Cow Peas.	Grass Seed.	Linseed.	Lucerne Seed.	Mangel Wurzel.	Millet (Broom).	Millet (Seed.)	Panicum Seed.	Sunflower Seed.	Other.	Total Extent of Land under Crop.	Land in Fallow, Lying Idle, &c.	Total Extent of Land under Cultivation.	Total Extent of Land under Permanent Pasture with Artificially Sown Grasses.	Total Area of Petty Sessions Districts.
South-Western Divis'n	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Ac.	Sq. mls.
Adavale	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	3	..	4,419
Augathella	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	5	7	..	5,264
Bollon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5,987
Charleville	..	..	1	..	1	..	..	1	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	40	5	45	..	9,023
Cunnamulla	..	..	2	..	..	..	..	..	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	22	..	22	..	13,577
Dirranbandi	..	..	..	..	..	..	..	..	..	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	..	15	..	4,715
Eulo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5,476
Hungerford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3,917
Quilpie	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	14,227
St. George	..	..	..	..	..	..	..	..	..	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	4	16	..	3,402
Thargomindah ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	22,819
Total South-Western	..	..	3	..	1	..	..	1	..	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	95	14	109	..	92,806
Central Division.																													
Alpha	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	7	12	..	7,983
Aramac	..	..	..	..	..	..	..	..	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	..	8	..	6,757
Barcaldine	..	..	..	..	..	..	..	..	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	..	10	..	3,862
Blackall	..	..	..	..	..	..	..	..	..	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	..	12	..	8,297
Clermont	..	..	..	..	..	..	..	..	..	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	125	50	175	..	15,011
Emerald	..	..	1	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	178	90	268	..	4,731
Longreach	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	18	..	18	..	12,117
Muttaburra	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	3	..	11,390
Springsure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	111	95	206	..	10,230
Tambo	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..	5	..	5,553
Taroom	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	39	54	93	..	5,448
Total Central ..	..	..	1	1	..	..	..	2	..	45	..	..	..	..	..	..	..	..	..	..	..	..	..	..	514	296	810	..	91,379
Maranoa Division.																													
Mitchell	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,783	412	2,195	..	10,387
Roma	..	..	1	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	24,434	7,233	31,667	..	6,394
Surat	..	..	..	..	..	..	..	..	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	..	8	..	4,248
Yuelba	1	..	2	..	..	1	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	27	504	531	..	591
Total Maranoa ..	1	..	3	..	..	1	..	6	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	26,252	8,149	34,401	..	21,620
Downs Division.																													
Allora	..	..	..	..	2	..	..	3	..	..	1,540	..	..	..	..	133	..	..	..	..	20	1,093	..	..	47,618	10,468	58,086	..	324
Chinchilla	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,952	3,041	4,993	150	2,311
Clifton	..	..	..	..	..	..	..	..	..	..	4,343	..	..	..	..	437	..	50	..	..	309	3,176	115	..	85,428	13,240	98,668	908	408
Condamine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,974	1,461	3,435	60	3,592
Dalby	..	..	..	..	..	..	..	1	..	..	1,355	..	..	..	..	..	..	..	..	..	5	..	..	..	45,801	6,786	52,587	67,725	6,797
Goondiwindi ..	..	..	3	..	2	..	..	1	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	369	563	932	4	4,385
Inglewood	..	..	..	..	..	..	..	4	..	..	40	..	..	..	..	..	..	..	..	..	..	..	..	..	5,624	3,123	8,747	4,760	1,450
Killarney	2	..	5	1	1	2	..	3	..	7	27	..	..	..	..	..	..	..	..	..	20	..	..	..	20,887	8,141	29,028	1,596	234
Oakey	..	..	..	..	..	..	..	..	..	..	1,056	..	..	..	..	912	..	..	..	..	206	138	..	..	113,091	10,617	123,708	15,860	1,173
Pittsworth	..	..	..	..	..	..	..	..	..	..	164	..	..	..	..	20	..	..	..	..	43	161	..	..	108,847	10,397	119,244	1,461	1,862
Stanthorpe	769	..	468	3	..	424	..	1,536	4	18	..	..	..	..	..	..	..	..	1	11	..	..	..	..	13,872	743	14,615	5	1,110
Texas	..	..	..	..	..	..	..	4	..	3	60	..	..	..	..	..	..	..	..	..	..	..	..	..	1,226	1,045	2,271	..	530
Toowoomba	3	1	7	2	3	4	3	3	1	30	755	..	..	..	..	127	..	..	..	..	22	390	..	..	50,332	5,875	56,207	366	291
Warwick	29	..	13	..	5	11	..	17	2	8	78	..	..	..	..	168	..	..	..	..	10	83	..	..	58,873	10,479	69,352	15	1,358
Total Downs ..	803	1	496	6	13	441	3	1,572	7	72	9,418	..	..	..	..	1,797	..	50	1	11	635	5,041	115	..	555,894	85,979	641,873	92,910	25,825
Grand Total, 1935 ..	2,001	13	1,347	293	1,023	1,008	91	4,659	85	950	9,438	14	4	320	295	1,914	..	50	429	129	635	5,121	115	..	1,334,690	239,476	1,574,166	822,143	670,500
Grand Total, 1934 ..	1,808	16	1,234	306	557	978	42	4,440	106	801	8,337	18	5	320	456	778	11	61	290	399	409	2,575	57	1	1,296,619	215,972	1,512,591	869,777	670,500
Increase, 1935 ..	193	..	113	..	466	30	49	219	..	149	1,101	..	..	..	..	1,136	..	..	139	..	226	2,546	58	..	38,071	23,504	61,575	..	..
Decrease, 1935 ..		3		13					21			[illegible]	[illegible]		161		[illegible]	[illegible]		[illegible]				[illegible]				[illegible]	

Table No. 44.

GRAIN AND OTHER CROPS—PRODUCTION, 1935.

(For Areas see Table No. 41.)

Divisions.	Grain Crops.							Hay (all Kinds).					Potatoes.		Pumpkins.	Cotton.	Sugar-cane.	Arrow-root (Tubers).	Peanuts.	Tobacco (Cured Leaf).	Vines. (Grapes Gathered.)
	Wheat.	Oats.	Barley.		Maize.	Rye.	Rice.	Wheat.	Oats.	Lucerne.	Other.	Total.	English.	Sweet.							
			Malting.	Other.																	
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Lb.	Tons.	Tons.	Lb.	Lb.	Lb.
Moreton Division.																					
Brisbane (North)	..	..	..	..	3,347	..	..	..	28	117	10	155	291	255	836	2,141	..	..	1,718	..	398,371
Brisbane (South)	..	..	..	..	838	..	..	..	40	333	..	373	31	4	148	576	..	..	..	..	663
Beaudesert	..	12	..	..	122,112	..	..	..	157	8,093	79	8,329	536	236	2,713	..	..	220	..	..	..
Caboolture	..	..	..	..	774	..	..	..	..	32	..	32	155	141	81	562	..	..	..	300	1,100
Cleveland	..	..	..	..	122	..	..	..	..	7	11	18	26	40	24	..	..	..	34,951	..	2,000
Crow's Nest	3,228	784	394	..	160,080	..	..	9	6	2,422	24	2,461	401	..	721	..	..	..	..	..	..
Dugandan	188	175	..	..	169,604	..	..	97	62	9,955	350	10,464	2,933	108	3,003	22,708	..	6	..	..	..
Esk	..	..	..	..	18,775	..	..	..	48	1,083	38	1,160	245	526	205	35,706	..	2	..	..	450
Gatton	378	..	..	..	88,714	..	..	264	321	6,888	133	7,606	2,628	680	4,466	119,214	..	..	..	..	800
Goodna	..	..	..	..	790	..	..	..	24	50	1	75	16	4	1	1,576	..	..	..	..	..
Harrisville	1,893	..	..	..	87,917	..	..	251	543	8,023	646	9,463	502	667	1,877	5,127	..	4	..	..	..
Ipswich	..	..	..	..	13,200	..	..	..	24	1,343	76	1,443	282	30	48	35,179	..	..	400	..	..
Kilcoy	..	..	..	..	20,597	..	..	..	14	182	..	196	143	497	298	1,638	..	150	..	..	..
Laidley	363	..	..	..	138,933	..	..	123	189	11,322	218	11,852	1,770	621	2,085	38,523	..	..	200	..	1,420
Logan	..	..	..	..	9,076	..	..	1	11	362	8	382	1,459	492	157	..	19,297	2,761	12,039	..	5,606
Lowood	..	..	..	..	92,428	..	..	..	236	4,006	93	4,335	2,312	697	2,120	23,515	..	..	..	..	248,200
Marburg	..	..	..	..	30,269	..	..	..	7	1,592	15	1,614	246	150	279	5,967	..	12	..	..	200
Maroochy	..	..	..	..	7,114	..	..	..	4	260	..	264	75	365	11	..	77,312	620	41,650	..	..
Redcliffe	..	..	..	..	5,638	..	..	..	..	74	..	74	418	302	636	..	335	..	..	..	..
Rosewood	..	..	..	..	41,937	..	..	5	66	4,235	148	4,454	270	132	694	5,384	..	..	..	..	..
Southport	..	..	..	..	16,545	..	..	..	3	79	..	82	504	101	54	..	..	5,855	..	..	..
Toogoolawah	..	..	..	..	73,582	..	..	..	40	5,331	31	5,402	783	1,103	3,154	14,154	..	..	..	..	8,000
Woodford	..	..	..	..	14,080	..	..	..	9	..	..	9	122	106	201	..	43	224	..	..	2,170
Wynnum	..	..	..	..	20	..	..	..	3	..	1	4	24	33	25	..	..	..	800	..	33,880
Oakey–Cooyar	723	528	..	126	30,972	..	..	4	34	503	10	551	249	..	663	..	..	..	..	..	..
Toowoomba–Helidon	..	..	..	..	18,467	..	..	..	2	1,822	8	1,832	937	334	1,705	14,162	..	..	..	..	19,100
Total Moreton	6,773	1,499	394	126	1,165,931	..	..	754	1,871	68,114	1,900	72,639	17,358	7,624	26,205	326,132	96,987	9,854	91,758	300	721,960
Wide Bay Division.																					
Biggenden	..	..	..	..	10,613	..	..	..	23	693	72	788	108	25	302	106,449	1,215	..	4,324	..	..
Bundaberg	..	..	..	..	6,578	..	..	..	..	347	10	357	154	66	5	10,716	489,036	3	1,367	9,739	..
Childers	..	..	..	..	301	..	..	..	..	..	..	..	..	..	..	26,881	175,414	..	..	..	..
Eidsvold	..	..	..	..	2,857	..	..	13	4	40	18	75	53	204	136	559,982	..	..	..	..	1,100
Gayndah	..	..	..	..	29,819	..	..	..	6	1,066	62	1,134	142	211	570	1,803,475	..	..	50	..	..
Gin Gin	..	..	..	..	3,412	..	..	..	10	223	5	238	59	2	3	8,315	62,926	3	..	..	..
Gympie	..	..	..	..	48,787	150	..	..	24	391	52	467	392	946	258	4,372	4,794	343	..	..	530
Kilkivan	..	..	..	..	7,205	..	..	..	..	579	103	682	35	21	48	13,663	..	..	..	..	..
Maryborough	..	..	..	..	1,807	..	..	35	43	586	82	746	253	9	31	11,636	57,678	..	21,840	..	8,590
Mount Perry	..	..	..	..	436	..	..	..	..	55	..	55	11	2	..	22,628	..	..	1,400	..	..
Nanango	2,637	7,740	..	..	351,285	..	..	30	235	7,840	146	8,251	735	693	1,245	38,973	..	8	4,091,129	..	1,380
Tiaro	..	10	..	..	8,221	..	..	..	32	516	10	558	277	71	51	5,335	21,165	12	500	..	6,140
Wienholt	1,563	7,443	48	..	360,195	..	..	42	98	9,487	170	9,797	1,957	408	1,922	420,564	..	16	4,189,106	..	..
Total Wide Bay	4,200	15,193	48	..	831,516	150	..	120	475	21,823	730	23,148	4,176	2,661	4,571	3,032,989	812,228	385	8,309,716	9,739	17,740
Port Curtis Division.																					
Banana	7,954	120	..	..	..	..	..	33	20	100	5	158	5	..	20	541,693	..	..	..	..	2,800
Gladstone	..	..	..	..	17,705	..	..	14	28	465	127	634	776	54	252	79,186	..	..	3,430	24,797	4,940
Monto	..	..	..	..	18,238	..	..	..	2	2,113	..	2,115	125	1	231	3,044,948	..	..	..	..	..
Mount Morgan	5,844	..	..	..	3,024	..	..	40	32	126	12	210	49	3	94	13,051,960	..	..	11,000	..	..
Rockhampton	..	..	..	..	12,909	..	..	47	178	838	481	1,544	428	120	176	436,670	..	..	391,367	387	68,570
St. Lawrence	..	..	..	..	114	..	..	..	..	192	..	192	4	1	1	15,438	835	..	..	..	..
Total Port Curtis	13,798	120	..	..	51,990	..	..	134	260	3,834	625	4,853	1,382	179	774	17,169,895	835	..	405,797	25,184	76,310

Table No. 44—*continued.*

Grain and Other Crops—Production, 1935. (For Areas see Table No. 41.)

Divisions.	Grain Crops.							Hay (all Kinds).					Potatoes.		Pumpkins.	Cotton.	Sugar-cane.	Arrowroot (Tubers).	Peanuts.	Tobacco (Cured Leaf).	Vines. (Grapes Gathered).
	Wheat.	Oats.	Barley.		Maize.	Rye.	Rice.	Wheat.	Oats.	Lucerne.	Other.	Total.	English.	Sweet.							
			Malting.	Other.																	
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Lb.	Tons.	Tons.	Lb.	Lb.	Lb.
Edgecumbe Division.																					
Ayr	..	..	..	..	..	..	..	..	..	..	..	..	1	..	5	..	487,788	..	..	4,660	..
Bowen	..	..	..	..	296	..	..	..	..	..	..	..	166	2	434	6,434	1,492	..	..	70,228	..
Cape River	..	..	..	..	..	..	..	..	..	..	..	..	9	3	15	..	..	..	..	..	8,214
Charters Towers	..	..	..	..	..	..	..	..	..	20	..	20	5	3	1	..	..	..	..	1,558	38,517
Collinsville	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	479	..	..	..	5,500	..
Mackay	..	..	..	..	660	..	..	..	..	..	..	..	46	6	19	22,431	872,661	..	2,696	60,621	2,250
Proserpine	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	132,234	..	..	..	..
Ravenswood	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3,584	..
Townsville	..	..	..	..	3	..	..	..	..	..	20	20	186	16	29	..	1,591	..	850	24,840	..
Total Edgecumbe	..	..	..	..	959	..	..	..	..	20	20	40	415	31	503	29,344	1,495,766	..	3,546	170,991	48,981
Rockingham Division.																					
Atherton	..	..	..	..	438,891	..	..	4	21	137	4	166	30	147	12	1,200	..	..	555,500	6,494	..
Cairns	..	..	..	..	947	400	..	..	..	..	..	..	22	28	5	300	597,235	..	..	4,422	..
Cardwell	..	..	..	..	75	..	..	..	..	..	..	..	11	3	7	4,429	166,277	..	2,100	..	..
Chillagoe	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Herberton	..	..	..	..	4,320	..	..	32	5	..	..	37	13	1	..	..	..	..	400	4,649	16,383
Ingham	..	..	..	..	440	..	..	..	..	..	..	..	323	5	13	..	445,124	..	..	3,500	..
Innisfail	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	502,115	..	..	..	..
Mareeba	..	20	..	..	1,959	..	..	..	..	..	..	..	43	1	23	39,628	..	..	148,332	1,051,308	..
Total Rockingham	..	20	..	..	446,632	400	..	36	26	137	4	203	442	185	60	45,557	1,710,751	..	706,332	1,070.373	16,383
York Peninsula Division.																					
Coen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cook	..	..	..	..	1,030	..	..	..	..	..	..	..	4	3	9	..	..	..	114,625	750	..
Douglas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	103,868	..	..	..	..
Somerset	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total York Peninsula	..	..	..	..	1,030	..	..	..	..	..	..	..	4	3	9	..	103,868	..	114,625	750	..
Carpentaria Division.																					
Burke	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Camooweal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cloncurry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Croydon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Etheridge	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hughenden	..	..	..	..	..	..	..	..	..	..	..	..	4	1	4	..	..	..	..	..	..
Julia Creek	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mount Isa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Norman	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Richmond	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Carpentaria	..	..	..	..	..	..	..	..	..	..	..	..	4	1	4	..	..	..	..	..	..
Central-Western Division.																					
Boulia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diamantina	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Isisford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Jundah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Windorah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Winton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Central-Western	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

GRAIN AND OTHER CROPS—PRODUCTION, 1935. (For Areas see Table No. 41.)

Divisions.	Grain Crops.							Hay (all Kinds).					Potatoes.		Pumpkins.	Cotton.	Sugar-cane.	Arrow-root (Tubers)	Peanuts.	Tobacco (Cured Leaf).	Vines. (Grapes Gathered).
	Wheat.	Oats.	Barley.		Maize.	Rye.	Rice.	Wheat.	Oats.	Lucerne.	Other.	Total.	English.	Sweet.							
			Malting.	Other.																	
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Lb.	Tons.	Tons.	Lb.	Lb.	Lb.
South-Western Division.																					
Adavale	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Augathella	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bollon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4,020
Charleville	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4,050
Cunnamulla	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dirranbandi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eulo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hungerford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Quilpie	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St. George	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Thargomindah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total South-Western ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8,070
Central Division.																					
Alpha	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Aramac	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Barcaldine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..
Blackall	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Clermont	..	..	..	..	..	..	..	..	..	..	4	4	1	..	..	4,170	..	..	..	..	..
Emerald	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15,400	..	..	..	..	300
Longreach	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Muttaburra	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Springsure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10,401	..	..	..	..	..
Tambo	..	..	..	..	..	..	..	..	..	..	..	..	6	..	1	..	..	..	..	..	..
Taroom	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,844	..	..	..	..	..
Total Central	..	..	..	..	..	..	..	..	..	..	4	4	7	..	3	31,815	..	..	..	..	300
Maranoa Division.																					
Mitchell	6,744	..	..	..	..	..	..	28	..	..	..	28	..	..	..	444	..	..	..	..	..
Roma	160,877	..	..	223	651	..	..	291	20	..	4	315	1	..	3	49,715	..	..	..	..	378,711
Surat	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Yeulba	..	..	..	..	..	..	..	..	..	..	..	..	2	..	4	..	..	..	..	..	1,270
Total Maranoa ..	167,621	..	..	223	651	..	..	319	20	..	4	343	3	..	7	50,159	..	..	..	..	379,981
Downs Division.																					
Allora	218,390	7,240	8,058	3,297	15,916	660	..	..	11	2,741	30	2,782	3	..	50	..	..	..	..	..	..
Chinchilla	341	..	..	..	1,284	..	..	2	..	3	..	5	..	..	..	28,457	..	..	..	..	..
Clifton	274,351	9,029	31,013	5,286	176,325	..	..	66	220	2,726	46	3,058	9	..	21	7,159	..	..	..	..	1,590
Condamine	7,194	240	..	..	1,170	..	..	25	..	10	..	35	1	..	1	35,059	..	..	..	..	2,850
Dalby	287,815	14,981	876	1,340	23,876	..	..	..	3	374	..	377	25	..	177	26,334	..	..	..	..	1,132
Goondiwindi	396	..	..	..	100	..	..	45	..	10	6	61	9	..	8	..	..	..	..	..	840
Inglewood	4,752	729	195	80	2,150	..	..	..	..	147	32	179	5	..	10	900	..	..	..	143,835	..
Killarney	92,732	4,155	798	1,370	136,480	144	..	..	..	1,760	36	1,796	76	..	8	..	..	..	..	..	..
Oakey	698,949	31,741	2,330	2,994	160,725	1,230	..	46	2	2,705	327	3,080	206	3	807	1,015	..	..	..	..	14,471
Pittsworth	625,198	12,892	9,272	3,418	40,703	..	..	20	59	618	143	840	..	..	6	..	..	..	..	..	..
Stanthorpe	..	..	..	..	1,017	..	..	11	47	120	..	178	267	..	7	..	..	..	..	26,730	3,862,256
Texas	2,379	..	..	172	1,824	..	..	..	..	15	15	30	6	..	3	603	..	..	..	107,181	..
Toowoomba	102,923	9,037	10,821	5,052	101,762	..	..	75	141	4,029	106	4,351	265	4	18	..	..	..	3,840	..	23,479
Warwick	182,504	12,583	1,086	3,117	242,004	180	..	84	149	3,882	570	4,685	102	..	89	..	..	..	..	..	43,178
Total Downs	2,497,924	102,627	64,449	26,126	1,005,336	2,214	..	374	632	19,140	1,311	21,457	974	7	1,205	99,527	..	.	3,840	277,746	3,949,796
Grand Total, 1935 ..	2,690,316	119,459	64,891	26,475	3,504,045	2,764	..	1,737	3,284	113,068	4,598	122,687	24,765	10,691	33,341	20,785,418	4,220,435	10,239	9,635,614	1,555,083	5,219,521
Grand Total, 1934 ..	4,076,181	82 198	111,588	45,016	4,142,079	1,927	..	4,022	4,373	139,870	5,892	154,157	21,627	9,577	31,632	26,924,179	4,271,380	9,712	8,493,815	1,025,049	4,825,223
Increase, 1935	..	37,261	..	..	..	837	..	..	..	..	..	..	3,138	1,114	1,709	..	..	527	1,141,799	530,034	394,298
Decrease, 1935 ..	1,385,865	..	46,697	18,541	638,034	..	..	2,285	1,089	26,802	1,294	31,470	..	..	..	6,138,761	50,945	..	..	..	..

Table No. 45.

FRUIT CROPS—PRODUCTION, 1935. (For Areas see Table 42.)

Divisions.	Apples.	Apricots.	Bananas.	Cherries.	Custard Apples.	Figs.	Gooseberries (Cape).	Lemons.	Mangoes.	Nectarines.	Oranges and Mandarins	Passion Fruit.	Papaws.	Peaches.	Pears.	Persimmons.	Pineapples.	Plums.	Quinces.	Strawberries.	Watermelons.
	Bushels.	Bushels.	Bunches.	Bushels.	Bushels.	Bushels.	Quarts.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels	Dozen.	Bushels.	Bushels.	Bushels.	Dozens.	Bushels.	Bushels.	Quarts.	Tons.
Moreton Division.																					
Brisbane (North)	..	..	38,609	..	375	..	..	90	280	..	175	372	62,619	2,373	..	82	83,522	110	..	8,855	3,858
Brisbane (South)	..	..	2,100	..	5,303	2,632	244	4	30	..	433	100	23,129	..	..	..	37,581	..	..	..	..
Beaudesert	..	..	1,850	..	..	..	..	38	..	..	404	..	..	..	..	..	..	..	..	..	..
Caboolture	..	..	50,455	..	..	..	3,500	20	..	..	8,967	800	..	..	..	..	162,124	..	..	8,400	..
Cleveland	..	..	33,496	..	16,547	..	..	1,109	23	..	685	789	30,110	..	..	56	101,648	..	..	143,352	..
Crow's Nest	..	..	..	..	..	..	..	1,218	..	..	1,706	..	..	..	..	..	..	..	..	..	..
Dugandan	..	..	600	..	..	..	..	..	..	..	..	..	83	..	..	..	62	..	..	..	..
Esk	..	..	5,640	..	..	..	..	1,241	..	..	3,036	100	98	..	..	..	30	..	..	..	..
Gatton	..	..	..	..	..	..	..	..	..	..	7,351	..	..	..	..	..	..	6	..	..	..
Goodna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Harrisville	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ipswich	..	..	..	..	..	..	..	..	58	..	1,320	..	..	..	..	..	8,120	..	..	..	..
Kilcoy	..	..	6,458	..	..	..	..	..	..	..	42	..	..	..	..	..	..	..	..	..	..
Laidley	..	..	300	..	..	..	..	..	..	..	68	..	103	..	..	..	181	..	..	..	..
Logan	..	..	165,187	..	11,924	..	..	458	540	..	3,512	1,897	617	..	..	260	11,847	..	..	450	..
Lowood	..	..	..	..	..	..	..	68	..	..	1,413	..	..	..	..	..	2,410	..	..	..	..
Marburg	..	..	..	..	..	..	1,580	..	..	..	100	..	..	..	..	..	1,620	..	..	..	..
Maroochy	..	..	416,011	..	845	..	..	570	43	..	97,879	280	6,968	..	..	..	554,690	..	..	49,478	..
Redcliffe	..	..	44,089	..	..	..	..	..	37	..	1,225	..	50	..	..	..	13,687	..	..	..	109
Rosewood	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Southport	..	..	527,274	..	82	..	..	62	..	..	6,522	153	2,038	..	..	..	4,190	..	..	180	11
Toogoolawah	..	..	..	..	..	..	..	..	..	..	88	..	..	..	..	..	..	..	..	..	..
Woodford	..	..	99,518	..	..	..	..	784	228	..	1,321	..	338	271	..	..	3,840	67	..	..	..
Wynnum	..	..	15,848	..	115	..	..	..	..	..	..	..	6,761	..	..	..	13,573	..	..	2,575	..
Oakey-Cooyar	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Toowoomba-Helidon	..	..	..	..	..	..	..	..	..	..	1,316	..	..	..	..	..	..	..	..	..	..
Total Moreton	..	..	1,407,435	..	35,191	2,632	5,324	5,662	1,239	..	137,563	4,491	132,914	2,644	..	398	999,125	183	..	213,290	3,978
Wide Bay Division.																					
Biggenden	..	..	172	..	..	..	..	..	..	..	109	..	..	..	..	..	835	..	..	..	..
Bundaberg	..	..	36,787	..	296	..	..	..	10	..	4,712	..	260	..	..	..	3,875	..	..	500	..
Childers	..	..	..	..	..	..	..	..	..	..	5,069	..	..	..	..	..	..	..	..	..	..
Eidsvold	..	..	..	..	..	..	..	..	..	..	95	..	..	..	..	..	..	..	..	..	..
Gayndah	..	..	898	..	..	..	..	8,425	..	..	16,765	..	85	..	..	..	696	..	..	..	..
Gin Gin	..	..	..	..	..	..	..	..	..	..	452	..	..	..	..	..	650	..	..	..	..
Gympie	..	..	178,452	..	..	..	..	534	173	..	1,851	170	7,230	..	..	..	129,560	..	..	650	..
Kilkivan	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Maryborough	..	..	4,835	..	252	..	..	..	230	..	53,832	92	150	..	..	..	24,752	..	..	..	..
Mount Perry	..	..	..	..	..	..	..	..	..	..	120	..	..	..	..	..	..	..	..	..	..
Nanango	..	..	..	..	..	..	..	..	..	..	13	..	..	..	..	..	..	..	..	..	..
Tiaro	..	..	7,250	..	40	..	..	..	157	..	1,092	..	6,242	..	..	..	4,575	..	..	..	..
Wienholt	..	..	..	..	..	..	..	57	..	..	811	..	..	292	..	..	20	91	..	..	..
Total Wide Bay	..	..	228,394	..	588	..	..	9,016	570	..	84,921	262	13,967	292	..	..	164,963	91	..	1,150	..
Port Curtis Division.																					
Banana	..	..	..	..	..	..	..	..	..	..	90	..	..	..	..	..	..	..	..	..	..
Gladstone	..	..	9,660	..	76	..	..	201	508	..	2,625	112	18,689	..	..	..	2,201	..	..	..	35
Monto	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	95	..	..	..	..
Mount Morgan	..	..	..	..	..	..	..	..	303	..	1,791	..	..	..	..	..	839	..	..	..	..
Rockhampton	..	..	49,349	..	474	..	..	1,784	1,297	..	20,399	818	3,802	..	..	..	43,738	..	..	2,600	15
St. Lawrence	..	..	1,450	..	..	..	..	..	..	..	..	..	..	..	..	..	2,232	..	..	..	..
Total Port Curtis	..	..	60,459	..	550	..	..	1,985	2,108	..	24,905	930	22,491	..	..	..	49,105	..	..	2,600	50

Table No. 45—*continued.*

FRUIT CROPS—PRODUCTION, 1935. (For Areas see Table 42.)

Divisions.	Apples.	Apricots.	Bananas.	Cherries.	Custard Apples.	Figs.	Goose-berries (Cape).	Lemons.	Mangoes.	Nec-tarines.	Oranges and Man-darins.	Passion Fruit.	Papaws.	Peaches.	Pears.	Per-simmons.	Pine-apples.	Plums.	Quinces.	Straw-berries.	Water-melons.
	Bushels.	Bushels.	Bunches.	Bushels.	Bushels.	Bushels.	Quarts.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Dozens.	Bushels.	Bushels.	Bushels.	Dozens.	Bushels.	Bushels.	Quarts.	Tons.
Edgecumbe Division.																					
Ayr	..	..	2,600	..	..	..	..	..	..	..	..	..	..	..	..	..	10	..	..	..	..
Bowen	..	..	3,000	..	..	..	..	54	10,103	..	1,251	..	..	..	..	..	29,724	..	..	..	3
Cape River	..	..	..	..	..	..	..	117	..	..	1,257	..	..	14	..	..	..	..	..	..	10
Charters Towers	..	..	..	..	..	..	..	79	50	..	3,461	..	..	..	..	..	..	..	..	..	..
Collinsville	..	..	..	..	..	..	..	..	..	..	130	..	..	..	..	..	..	..	..	..	..
Mackay	..	..	7,084	..	96	..	..	113	1,948	..	3,841	..	616	..	..	..	2,200	..	..	..	4
Proserpine	..	..	..	..	..	..	..	..	932	..	833	..	..	..	..	..	..	..	..	..	..
Ravenswood	..	..	..	..	..	..	..	..	..	..	270	..	..	..	..	..	..	..	..	..	..
Townsville	..	..	3,380	..	95	..	..	65	1,188	..	714	..	2,319	..	..	..	83,079	..	..	860	13
Total Edgecumbe	..	..	16,064	..	191	..	..	428	14,221	..	11,757	..	2 935	14	..	..	115,013	..	..	860	30
Rockingham Division.																					
Atherton	..	..	100	..	..	..	..	..	..	..	519	..	..	..	..	..	..	..	..	..	..
Cairns	..	..	15,935	..	..	..	..	..	..	..	4,632	..	130	..	..	..	4,870	..	..	..	3
Cardwell	..	..	4,330	..	..	..	..	..	..	..	9,884	..	..	..	..	..	103	..	..	..	..
Chillagoe	..	..	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Herberton	14	..	..	..	..	..	..	..	..	..	404	..	..	18	..	6	..	115	..	..	..
Ingham	..	..	100	..	..	..	..	..	475	..	1,400	..	..	3	..	..	..	..	..	..	..
Innisfail	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mareeba	..	..	180	..	..	..	..	..	..	..	192	..	..	..	..	..	90	..	..	..	..
Total Rockingham	14	..	20,655	..	..	..	..	..	475	..	17,031	..	130	21	..	6	5,063	115	..	..	3
York Peninsula Division.																					
Coen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cook	..	..	371	..	..	..	..	..	..	..	878	..	..	..	..	..	86	..	..	..	..
Douglas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Somerset	..	..	..	..	..	..	..	..	102	..	..	..	..	..	..	..	60	..	..	..	..
Total York Peninsula	..	..	371	..	..	..	..	..	102	..	878	..	..	..	..	..	146	..	..	..	..
Carpentaria Division.																					
Burke	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Camooweal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cloncurry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Croydon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Etheridge	..	..	..	..	..	..	..	..	..	..	50	..	..	..	..	..	..	..	..	..	..
Hughenden	..	..	..	..	..	..	..	46	..	..	539	..	..	..	..	..	..	..	..	..	4
Julia Creek	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mount Isa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Norman	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Richmond	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Carpentaria	..	..	..	..	..	..	..	46	..	..	589	..	..	..	..	..	..	..	..		4
Central-Western Division.																					
Boulia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diamantina	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Isisford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Jundah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Windorah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Winton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Central-Western	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Table No. 45—*continued.*

FRUIT CROPS—PRODUCTION, 1935. (For Areas see Table 42.)

Divisions.	Apples.	Apricots.	Bananas.	Cherries.	Custard Apples.	Figs.	Goose-berries (Cape).	Lemons.	Mangoes.	Nec-tarines.	Oranges and Man-darins.	Passion Fruit.	Papaws.	Peaches.	Pears.	Per-simmons.	Pine-apples.	Plums.	Quinces.	Straw-berries.	Water-melons.
	Bushels.	Bushels.	Bunches.	Bushels.	Bushels.	Bushels.	Quarts.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Dozens.	Bushels.	Bushels.	Bushels.	Dozens.	Bushels.	Bushels.	Quarts.	Tons.
South-Western Division.																					
Adavale	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Augathella	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bollon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Charleville	..	..	..	..	..	..	..	95	..	..	1,016	..	..	59	..	..	..	..	..	..	..
Cunnamulla	..	..	..	..	..	..	..	..	..	..	380	..	..	..	..	..	..	..	..	..	..
Dirranbandi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eulo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hungerford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Quilpie	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St. George	..	..	..	..	..	..	..	..	..	..	70	..	..	..	..	..	..	..	..	..	..
Thargomindah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total South-Western	..	..	..	..	..	..	..	95	..	..	1,466	..	..	59	..	..	..	..	..	..	..
Central Division.																					
Alpha	..	..	..	..	..	..	..	..	..	..	125	..	..	..	..	..	..	..	..	..	..
Aramac	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Barcaldine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Blackall	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Clermont	..	..	..	..	..	..	..	..	..	..	145	..	..	..	..	..	..	..	..	..	..
Emerald	..	..	..	..	..	..	..	200	..	..	3,070	..	..	..	..	..	..	..	..	..	..
Longreach	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Muttaburra	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Springsure	..	..	..	..	..	..	..	..	..	..	42	..	..	..	..	..	..	..	..	..	..
Tambo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Taroom	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Central	..	..	..	..	..	..	..	200	..	..	3,382	..	..	..	..	..	..	..	..	..	..
Maranoa Division.																					
Mitchell	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Roma	..	33	..	..	..	..	..	54	..	..	1,341	..	..	164	..	..	..	29	..	..	..
Surat	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Yeulba	..	..	..	..	..	..	..	..	..	..	126	..	..	..	..	..	..	..	..	..	..
Total Maranoa	..	33	..	..	..	..	..	54	..	..	1,467	..	..	164	..	..	..	29	..	..	..
Downs Division.																					
Allora	..	..	..	..	..	..	..	3	..	..	1,500	..	..	..	..	..	..	..	..	..	..
Chinchilla	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Clifton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Condamine	..	..	..	..	..	..	..	..	..	..	33	..	..	..	..	..	..	..	..	..	..
Dalby	..	..	..	..	..	..	..	..	..	..	110	..	..	..	..	..	..	..	..	..	..
Goondiwindi	..	..	..	..	..	..	..	2	..	..	14	..	..	..	..	..	..	..	..	..	..
Inglewood	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Killarney	..	..	..	..	..	..	..	..	..	..	74	..	..	..	..	..	..	..	..	..	..
Oakey	..	74	..	..	..	..	..	..	..	..	213	..	..	41	..	..	..	..	..	..	..
Pittsworth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stanthorpe	242,154	3,506	..	100	..	..	..	..	..	828	..	..	..	87,049	16,408	..	..	61,782	139	..	..
Texas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Toowoomba	259	1,044	..	..	..	..	..	522	..	..	1,866	..	..	492	45	..	..	447	..	100	..
Warwick	7,571	666	..	..	..	..	..	..	..	25	..	..	..	1,010	576	..	..	1,065	..	..	..
Total Downs	249,984	5,290	..	100	..	..	..	527	..	853	3,810	..	..	88,592	17,029	..	..	63,294	139	100	..
Grand Total, 1935	249,998	5,323	1,733,378	100	36,520	2,632	5,324	18,013	18,715	853	287,769	5,683	172,437	91,786	17,029	404	1,333,415	63,712	139	218,000	4,065
Grand Total, 1934	284,893	6,992	1,905,900	419	28,869	4,131	51,760	14,621	30,133	1,950	388,207	10,921	133,242	99,542	19,396	1,612	1,126,831	73,948	137	205,005	732
Increase, 1935	..	..	..	..	7,651	..	..	3,392	..	..	..	..	39,195	..	..	..	206,584	..	2	12,995	3,333
Decrease, 1935	34,895	1,669	172,522	319	..	1,499	46,436	..	11,418	1,097	100,438	5,238	..	7,756	2,367	1,208	..	10,236	..	..	..

Table No. 40.

VEGETABLE AND MISCELLANEOUS CROPS—PRODUCTION, 1935. (For Areas see Table 43.)

Division and Petty Sessions District.	VEGETABLES.									MISCELLANEOUS CROPS.											
	Beans.		Cabbages and Cauliflowers.	Cucumbers.	Onions.	Peas.		Tomatoes.	Turnips.	Canary Seed.	Coffee.	Cocoanuts.	Cow Peas.	Grass Seed.	Linseed.	Lucerne Seed.	Mangel Wurzel.	Millet (Broom)	Millet (Seed).	Panicum Seed.	Sunflower Seed.
	Green.	Dried.				Green.	Dried.														
	Bags.	Bushels.	Dozen.	Dozen.	Cwt.	Bags.	Bushels.	Bushels.	Tons.	Cwt.	Lb.	Dozen.	Bushels.	Cwt.	Lb.	Cwt.	Tons.	Lb. Straw.	Cwt.	Cwt.	Cwt.
Moreton Division.																					
Brisbane (North)	12,616	805	48,849	14,794	..	13,108	375	42,210	16	..	..	..	..	..	..	..	..	..	..	..	..
Brisbane (South)	590	..	14,613	2,233	..	784	..	6,791	122	..	..	..	..	..	..	..	..	..	..	..	..
Beaudesert	75	..	..	..	..	..	..	..	32	..	..	..	..	..	..	..	79	..	..	..	..
Caboolture	100	..	1,075	1,520	..	..	..	2,240	..	..	..	..	..	..	..	..	58	..	..	..	..
Cleveland	14,061	..	95,829	65,663	..	1,635	..	123,642	12	..	..	..	..	..	..	..	..	..	..	..	..
Crow's Nest	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dugandan	3,045	..	6,491	6,509	..	1,523	30	3,272	36	..	..	..	..	..	..	..	303	3,136	..	..	..
Esk	56	..	84	..	..	48	..	56	15	..	..	..	..	..	..	..	42	..	..	..	..
Gatton	80	..	5,510	..	50,424	..	..	120	7	..	..	..	..	240	..	..	52	..	..	..	..
Goodna	..	..	5,500	220	20	..	..	160	7	..	..	..	..	..	..	..	..	..	..	..	..
Harrisville	188	58	..	190	56	258	48	1,223	..	..	..	..	..	..	..	..	249	..	..	..	..
Ipswich	325	..	102	..	..	333	..	130	..	..	..	..	..	..	..	..	1	..	..	..	..
Kilcoy	..	..	..	..	..	..	..	250	7	..	..	..	..	..	..	..	264	..	..	..	..
Laidley	109	..	207	..	25,273	35	..	525	6	..	..	..	..	..	..	..	249	106,700	..	..	..
Logan	3,055	..	25,591	1,240	..	8,241	..	30,240	13	..	..	..	..	..	..	..	..	..	..	..	..
Lowood	..	..	100	200	11,674	..	..	..	34	..	..	..	..	..	..	..	297	..	..	..	..
Marburg	136	..	..	..	80	559	90	1,683	..	..	..	..	..	..	..	..	24	..	..	..	..
Maroochy	17,822	..	57	6,734	..	1,048	..	1,560	..	..	1,180	..	..	..	..	..	..	..	..	..	..
Redcliffe	460	20	10,280	2,970	..	2,344	..	3,926	..	..	..	..	..	..	..	..	..	..	..	..	..
Rosewood	..	..	..	..	..	..	..	..	..	..	..	..	..	20	..	..	106	..	..	..	..
Southport	1,071	50	1,720	90	..	444	49	270	6	..	..	..	..	..	..	..	..	..	..	..	..
Toogoolawah	..	..	..	..	983	..	..	..	4	..	..	..	..	..	..	..	491	..	..	..	..
Woodford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wynnum	742	..	95	1,227	..	1,757	..	9,623	8	..	..	..	..	..	..	..	..	..	..	..	..
Oakey–Cooyar	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	..	..	..
Toowoomba–Helidon	..	..	100	..	272	..	..	600	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Moreton	54,531	933	216,203	103,590	88,782	32,117	592	228,521	325	..	1,180	..	..	260	..	..	2,219	109,836	..	..	..
Wide Bay Division.																					
Biggenden	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	35	..	..	..	..
Bundaberg	120	..	1,038	..	..	330	..	150	..	..	..	..	..	..	..	..	..	..	..	..	..
Childers	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eidsvold	..	..	..	..	..	..	..	..	..	..	..	..	..	30	..	..	8	..	..	..	..
Gayndah	..	56	..	..	..	58	678	77	..	..	..	..	630	25	..	..	2	9,392	..	..	..
Gin Gin	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gympie	36,068	..	1,104	1,320	..	385	70	887	..	..	5,030	..	..	..	..	..	25	..	..	..	..
Kilkivan	50	..	..	..	..	..	..	116	..	..	..	..	..	..	..	..	..	..	..	..	..
Maryborough	70	..	1,120	50	..	206	..	130	10	..	..	..	..	..	..	..	..	..	..	..	..
Mount Perry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nanango	..	..	..	..	..	..	..	..	..	60	..	..	1,138	85	..	..	..	..	..	..	..
Tiaro	3,003	..	742	250	..	380	..	1,456	42	..	..	..	..	..	..	..	24	..	..	..	..
Wienholt	670	114	100	..	5,098	570	40	36	..	..	..	..	418	..	..	..	438	..	..	..	..
Total Wide Bay	39,981	170	4,104	1,620	5,098	1,929	788	2,852	52	60	5,030	..	2,186	140	..	..	532	9,392	..	..	..
Port Curtis Division.																					
Banana	..	..	800	..	20	..	..	1,500	..	..	..	..	..	..	..	..	..	..	..	..	..
Gladstone	510	..	12,662	364	..	1,068	..	15,672	6	..	..	..	..	..	..	..	..	..	..	..	..
Monto	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mount Morgan	592	..	628	250	..	505	..	2,575	7	..	..	..	..	..	..	..	..	..	..	..	..
Rockhampton	1,261	..	4,790	794	80	1,137	..	3,072	17	..	..	..	..	..	..	..	..	..	..	..	..
St. Lawrence	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Port Curtis	2,363	..	18,880	1,408	100	2,710	..	22,819	30	..	..	..	..	..	..	..	..	..	..	..	..

Table No. 46—*continued.*

VEGETABLE AND MISCELLANEOUS CROPS—PRODUCTION, 1935. (For Areas see Table 43.)

Division and Petty Sessions District.	Vegetables.									Miscellaneous Crops.												
	Beans.		Cabbages and Cauliflowers.	Cucumbers.	Onions.	Peas.		Tomatoes.	Turnips.	Canary Seed.	Coffee.	Cocoanuts.	Cow Peas.	Grass Seed.	Linseed.	Lucerne Seed.	Mangel Wurzel.	Millet (Broom)	Millet (Seed).	Panicum Seed.	Sunflower Seed.
	Green.	Dried.				Green.	Dried.														
	Bags.	Bushels.	Dozen.	Dozen.	Cwt.	Bags.	Bushels.	Bushels.	Tons.	Cwt.	Lb.	Dozen.	Bushels.	Cwt.	Lb.	Cwt.	Tons.	Lb. Straw.	Cwt.	Cwt.	Cwt.
Edgecumbe Division.																					
Ayr	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bowen	61	..	487	33,764	..	..	..	68,602	..	..	..	..	..	..	..	..	..	..	..	..	..
Cape River	..	..	358	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Charters Towers	612	..	343	118	..	80	..	118	..	..	..	..	..	..	..	..	..	..	..	..	..
Collinsville	..	..	..	..	..	..	..	50	..	..	..	..	..	..	..	..	..	..	..	..	..
Mackay	108	..	499	385	..	36	..	775	..	..	..	..	..	..	..	..	10	..	..	..	..
Proserpine	..	..	..	..	..	..	..	642	..	..	..	..	..	..	..	..	..	..	..	..	..
Ravenswood	..	..	..	..	..	..	..	200	..	..	..	..	..	..	..	..	..	..	..	..	..
Townsville	1,641	..	332	2,108	..	..	..	6,171	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Edgecumbe	2,422	..	2,019	36,375	..	116	..	76,558	..	..	..	..	..	..	..	..	10	..	..	..	..
Rockingham Division.																					
Atherton	..	..	..	..	..	24	..	..	..	..	..	..	110	..	..	..	..	..	..	..	..
Cairns	..	..	1,857	..	..	..	..	800	..	..	..	..	..	..	..	..	..	..	..	..	..
Cardwell	63	..	..	..	..	..	..	3,609	3	..	..	..	68	..	..	..	..	..	..	80	..
Chillagoe	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Herberton	..	..	694	..	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..
Ingham	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Innisfail	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mareeba	41	..	440	..	..	..	..	252	..	..	..	..	264	..	..	..	..	..	..	..	..
Total Rockingham	104	..	2,991	..	..	24	..	4,661	8	..	..	..	442	..	..	..	..	..	..	80	..
York Peninsula Division																					
Coen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cook	..	..	..	..	..	..	..	74	..	..	..	..	..	..	..	..	..	..	..	..	..
Douglas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Somerset	..	..	..	..	..	..	..	..	..	..	..	6,500	..	..	..	..	..	..	..	..	..
Total York Peninsula	..	..	..	..	..	..	..	74	..	..	..	6,500	..	..	..	..	..	..	..	..	..
Carpentaria Division.																					
Burke	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Camooweal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cloncurry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Croydon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Etheridge	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hughenden	24	..	20	..	16	31	..	40	..	..	..	..	..	..	..	..	..	..	..	..	..
Julia Creek	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mount Isa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Norman	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Richmond	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Carpentaria	24	..	20	..	16	31	..	40	..	..	..	..	..	..	..	..	..	..	..	..	..
Central-Western Division.																					
Boulia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diamantina	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Isisford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Jundah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Windorah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Winton	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Central-Western	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

VEGETABLE AND MISCELLANEOUS CROPS—PRODUCTION, 1935. (For Areas see Table 43.)

Division and Petty Sessions District.	VEGETABLES.									MISCELLANEOUS CROPS.											
	Beans.		Cabbages and Cauliflowers.	Cucumbers.	Onions.	Peas.		Tomatoes.	Turnips.	Canary Seed.	Coffee.	Cocoanuts.	Cow Peas.	Grass Seed.	Linseed.	Lucerne Seed.	Mangel Wurzel.	Millet (Broom)	Millet (Seed).	Panicum Seed.	Sunflower Seed.
	Green.	Dried.				Green.	Dried.														
	Bags.	Bushels.	Dozen.	Dozen.	Cwt.	Bags.	Bushels.	Bushels.	Tons.	Cwt.	Lb.	Dozen.	Bushels.	Cwt.	Lb.	Cwt.	Tons.	Lb. Straw.	Cwt.	Cwt.	Cwt.
South-Western Division.																					
Adavale	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Augathella	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bollon	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Charleville	..	..	120	..	53	..	..	63	..	..	..	..	..	..	..	..	..	..	..	..	..
Cunnamulla	..	..	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dirranbandi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eulo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hungerford	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Quilpie	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St. George	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Thargomindah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total South-Western	..	..	180	..	53	..	..	63	..	..	..	..	..	..	..	..	..	..	..	..	..
Central Division.																					
Alpha	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Aramac	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Barcaldine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Blackall	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Clermont	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Emerald	..	..	248	400	..	..	..	500	..	..	..	..	..	..	..	..	..	..	..	..	..
Longreach	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Muttaburra	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Springsure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tambo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Taroom	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Central	..	..	248	400	..	..	..	500	..	..	..	..	..	..	..	..	..	..	..	..	..
Maranoa Division.																					
Mitchell	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Roma	..	..	60	..	..	..	..	95	..	..	..	..	..	..	..	..	..	..	..	..	..
Surat	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Yeulba	26	..	160	..	..	28	..	400	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Maranoa	26	..	220	..	..	28	..	495	..	..	..	..	..	..	..	..	..	..	..	..	..
Downs Division.																					
Allora	..	..	..	..	110	..	..	450	..	4,384	..	..	..	328	..	..	..	..	214	6,575	..
Chinchilla	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Clifton	..	..	..	..	..	..	..	..	..	10,122	..	..	..	2,130	..	30	..	..	2,589	21,818	810
Condamine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dalby	..	..	..	..	..	..	..	300	..	7,220	..	..	..	..	..	..	..	..	15	..	..
Goondiwindi	..	..	200	..	70	..	..	50	..	..	..	..	..	..	..	..	..	..	..	..	..
Inglewood	..	..	..	..	..	..	..	44	..	386	..	..	..	..	..	..	..	..	..	..	..
Killarney	96	..	1,471	300	38	392	..	186	..	155	..	..	..	..	..	..	..	..	51	..	..
Oakey	..	..	..	..	..	..	..	..	..	4,412	..	..	..	7,252	..	..	..	..	4,974	652	..
Pittsworth	..	..	..	..	..	..	..	..	..	367	..	..	..	40	..	..	..	..	740	1,825	..
Stanthorpe	62,292	..	43,557	100	..	29,322	..	132,660	10	..	..	..	..	..	..	..	10	10,388	..	..	..
Texas	..	..	..	..	..	..	..	225	..	80	..	..	..	..	..	..	..	..	..	..	..
Toowoomba	76	15	20,740	160	30	426	15	130	1	1,775	..	..	..	587	..	..	..	..	140	3,626	..
Warwick	621	..	1,274	..	190	223	..	483	6	142	..	..	..	1,185	..	..	..	..	200	560	..
Total Downs	63,085	15	67,242	560	438	30,363	15	134,528	17	29,043	..	..	..	11,522	..	30	10	10,388	8,923	35,056	810
Grand Total, 1935	162,536	1,118	312,107	143,953	94,487	67,318	1,395	471,111	432	29,103	6,210	6,500	2,628	11,922	..	30	2,771	129,616	8,923	35,136	810
Grand Total, 1934	159,081	1,114	259,052	175,390	40,755	65,394	1,463	435,402	523	30,903	13,766	6,500	3,182	6,785	24,540	46	1,888	441,370	4,362	22,902	853
Increase, 1935	3,455	4	53,055	..	53,732	1,924	..	35,709	..	..	..	..	..	5,137	..	..	883	..	4,561	12,234	..
Decrease, 1935	..	..	..	31,437	..	..	68	..	91	1,800	7,556	..	554	..	24,540	16	..	11,754	..	..	43

Table No. 47.

SHOWING THE TOTAL EXTENT OF LAND UNDER CULTIVATION AND THE AREA UNDER EACH DESCRIPTION OF CROP IN QUEENSLAND—RETURN FOR TEN YEARS.

YEAR.	Total Extent of Land under Cultivation.	Land in Fallow Lying Idle, &c.	Total Extent of Land under Crop.	AREA UNDER EACH DESCRIPTION OF CROP.													
				GRAIN CROPS.							POTATOES.		Pumpkins.	Cotton.	SUGAR-CANE.		Arrow-root.
				Wheat.	Oats.	Barley.		Maize.	Rye.	Rice.	English.	Sweet.			Area Crushed.	Total Area.	
						Malting.	Other.										
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1926	1,288,518	346,735	941,783	57,084	210	250	149	137,542	3	9	8,642	1,252	5,963	18,743	189,312	266,519	831
1927	1,295,992	229,380	1,066,612	215,073	2,272	2,366	854	234,013	25	..	10,035	1,615	15,760	14,950	203,748	274,838	883
1928	1,268,475	223,843	1,044,632	218,069	916	5,188	2,466	192,173	70	3	8,154	1,841	8,746	20,316	215,674	283,476	538
1929	1,269,242	223,007	1,046,235	204,116	2,003	6,318	3,436	171,614	27	1	8,116	2,066	11,014	15,003	214,880	291,660	601
1930	1,331,513	187,297	1,144,216	272,316	5,132	6,148	2,286	172,176	29	..	10,277	2,015	14,437	22,652	222,044	296,070	761
1931	1,401,932	185,530	1,216,402	248,783	1,364	1,701	522	147,669	7	..	10,374	1,874	13,143	22,452	233,304	309,818	789
1932	1,426,648	181,010	1,245,638	250,049	3,733	3,275	1,515	98,487	18	..	9,743	1,791	9,546	29,995	205,046	291,136	691
1933	1,499,996	186,558	1,313,438	232,053	5,207	5,728	3,037	166,948	47	..	11,936	1,791	13,518	68,203	228,154	311,910	797
1934	1,512,591	215,972	1,296,619	221,729	4,566	6,600	3,004	160,607	75	..	11,666	2,271	12,272	43,397	218,426	303,926	835
1935	1,574,166	239,476	1,334,690	239,631	6,823	4,285	2,095	157,370	161	..	13,620	2,503	13,368	54,947	228,515	314,700	860

YEAR.	AREA UNDER EACH DESCRIPTION OF CROP—*continued.*																		
	Tobacco.	COFFEE.		Hay (all kinds).	Green Forage (all kinds).	VINES.		BANANAS.		PINEAPPLES.		ORANGES AND MANDARINS.		MANGOES.		Straw-berries.	APPLES.		All Other Crops.
		Bear-ing.	Total Area.			Bear-ing.	Total Area.	Bearing.	Total Area.	Bear-ing.	Total Area.	Bear-ing.	Total Area.	Bear-ing.	Total Area.		Bear ing.	Total Area.	
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1926	125	17	19	40,141	342,580	1,268	1,682	11,122	16,489	3,274	4,235	2,734	3,899	211	240	86	2,759	4,203	18,170
1927	135	9	24	65,412	155,843	1,475	1,762	10,968	17,967	3,099	4,204	2,646	3,874	190	221	110	3,212	4,158	26,338
1928	138	7	11	55,498	180,524	1,627	1,787	13,185	19,750	3,259	4,734	2,752	3,734	208	249	152	3,502	4,133	26,160
1929	159	11	12	49,745	208,624	1,617	1,749	12,874	19,357	3,393	5,144	2,874	3,872	182	204	182	3,475	4,012	24,544
1930	71	12	12	52,228	217,282	1,519	1,687	12,565	18,030	3,983	5,543	2,805	3,773	155	185	173	3,427	4,039	24,019
1931	382	17	21	59,601	309,957	1,514	1,749	10,885	14,764	4,394	5,789	2,965	3,969	146	169	126	3,745	4,536	28,031
1932	3,817	7	9	64,076	392,762	1,586	1,868	7,235	10,589	4,534	5,862	2,824	3,622	132	160	114	3,527	4,741	28,504
1933	4,004	5	7	92,943	311,462	1,586	1,963	6,777	10,926	4,551	5,889	2,696	3,424	178	208	126	3,488	5,199	35,864
1934	2,081	18	23	86,477	338,312	1,517	1,926	7,027	10,323	4,603	5,584	2,836	3,421	176	211	138	3,451	5,373	37,948
1935	3,117	14	18	71,309	379,651	2,025	2,470	7,004	8,500	4,545	5,779	2,635	3,222	152	185	140	3,413	5,452	44,484

Table No. 48.

Showing the Gross Produce of Principal Crops Raised in Queensland—Return for Ten Years.

YEAR.	QUANTITY OF PRODUCE.												
	GRAIN CROPS.							POTATOES.		Pumpkins.	Cotton. Unginned.	SUGAR-CANE.	
	Wheat.	Oats.	Barley.		Maize.	Rye.	Rice.	English.	Sweet.			Weight of Cane.	Sugar made at 94 % Net Titre.
			Malting.	Other.									
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Tons.	Tons.	Tons.	Lb.	Tons.	Tons.
1926	379,339	1,674	1,061	930	2,658,895	89	120	9,749	3,810	12,154	9,059,907	2,925,662	389,272
1927	3,783,584	43,788	57,032	15,368	6,703,518	638	..	18,914	6,009	51,148	7,060,756	3,555,827	485,745
1928	2,515,561	13,737	76,392	31,201	5,135,607	1,092	121	9,657	7,572	20,922	12,290,910	3,736,311	520,620
1929	4,235,172	38,494	139,604	65,963	4,376,412	364	12	13,214	7,017	27,591	8,024,502	3,581,265	518,516
1930	5,107,561	94,452	134,226	39,337	4,565,850	330	..	18,489	7,109	38,354	17,022,897	3,528,660	516,783
1931	3,863,894	20,352	28,882	7,515	3,780,597	54	..	17,189	6,802	33,222	15,244,644	4,034,300	581,276
1932	2,493,902	58,729	67,792	33,241	1,653,853	239	..	14,017	4,106	18,153	6,270,116	3,546,370	514,027
1933	4,361,614	69,534	99,786	52,694	3,715,764	840	..	20,123	5,344	33,440	17,718,306	4,667,122	638,559
1934	4,076,181	82,198	111,588	45,016	4,142,079	1,927	..	21,627	9 577	31,632	26 924,179	4,271,380	611,161
1935	2,690,316	119,459	64,891	26,475	3,504,045	2,764	..	24,765	10,691	33,341	20,785,418	4,220,435	610,080

YEAR.	QUANTITY OF PRODUCE—*continued*.												
	Arrowroot (Tubers).	Tobacco (Cured Leaf).	Coffee.	Hay (all Kinds).	Ensilage.	VINES.		Bananas.	Pineapples.	Oranges and Mandarins.	Mangoes.	Strawberries.	Apples.
						Grapes.	Wine.						
	Tons.	Lb	Lb.	Tons.	Tons.	Lb.	Gallons.	Bunches.	Dozens.	Bushels.	Bushels.	Quarts.	Bushels.
1926	9,235	102,784	8,798	47,740	4,728	3,610,997	32,974	2,754,795	953,248	283,775	50,338	102,532	113,810
1927	10,122	109,595	6,578	94,996	9,721	3,777,830	38,571	2,863,414	823,331	243,037	34,295	85,924	103,893
1928	5,938	111,885	2,102	85,651	4,037	3,946,788	37,210	3,265,161	938,335	377,177	78,609	161,584	183,461
1929	4,870	192,943	8,227	79,583	2,933	4,230,703	48,174	2,940,683	857,116	272,801	45,623	330,287	177,062
1930	10,098	58,594	6,458	87,146	4,880	5,366,062	48,899	3,068,143	1,000,508	308,967	31,924	209,413	217,317
1931	8,276	260,670	8,455	91,275	5,819	4,917,808	41,456	2,950,678	1,181,654	304,661	36,781	148,329	179,745
1932	6,878	2,303,861	4,200	82,104	6,305	5,296,980	35,301	1,869,883	1,175,870	321,995	23,035	111,667	233,565
1933	9,950	2,079,754	5,580	144,250	8,515	5,053,022	31,796	2,027,505	1,355,300	294,396	11,126	158,732	298,372
1934	9,712	1,025,049	13,766	154,157	7,566	4,825,223	38,051	1,905,900	1,126,831	388,207	30,133	205,005	284,893
1935	10,239	1,555,083	6,210	122,687	5,644	5,219,521	22,569	1,733,378	1,333,415	287,769	18,715	218,000	249,998

Table No. 49.

Showing the Gross Value of Principal Crops Raised in Queensland—Return for Ten Years.

Year.	Wheat.	Oats.	Barley.		Maize.	Rye.	Rice.	Potatoes.		Pumpkins.	Cotton Unginned.	Sugar-cane.	Arrowroot (Tubers).
			Malting.	Other.				English.	Sweet.				
	£	£	£	£	£	£	£	£	£	£	£	£	£
1926	126,841	488	252	221	883,529	45	32	169,246	39,529	183,070	190,069	6,153,474	27,705
1927	1,040,486	11,859	13,961	3,810	1,815,536	249	..	178,895	28,543	184,346	144,576	7,108,907	20,244
1928	639,372	3,663	18,780	7,865	802,439	428	41	80,322	26,187	125,532	213,832	7,209,778	11,876
1929	1,036,735	9,664	29,520	13,605	1,016,604	146	4	225,739	52,335	255,217	186,121	7,163,024	9,740
1930	1,030,642	22,039	24,608	6,843	965,487	132	..	165,245	25,918	138,234	354,652	7,040,415	21,206
1931	*a* 753,435	3,166	3,476	792	518,257	22	..	132,499	23,342	144,350	*k* 307,975	7,326,233	11,586
1932	*b* 447,169	10,400	10,169	4,986	389,345	74	..	108,630	21,043	89,252	*l* 125,106	6,852,717	12,037
1933	*c* 748,289	11,372	17,252	8,562	681,223	266	..	125,769	14,919	109,377	*m* 282,740	7,247,122	13,432
1934	*d* 776,689	14,214	19,501	6,253	562,095	434	..	180,225	28,730	119,224	*n* 397,263	6,934,764	10,683
1935	*e* 597,059	20,900	11,895	4,695	674,117	690	..	229,076	42,764	134,321	*o* 376,456	7,073,049	10,239

Year.	Tobacco (Cured Leaf).	Coffee.	Hay (All Kinds).	Ensilage. *	Grapes.	Bananas.	Pineapples.	Oranges and Mandarins.	Mangoes.	Straw-berries.	Apples.	Tomatoes.	Cabbages and Cauli-flowers.	All Crops.
	£	£	£	£	£	£	£	£	£	£	£	£	£	£
1926	8,019	330	422,689	7,721	97,798	660,003	314,770	162,579	24,750	10,766	63,425	193,349	124,309	12,181,917
1927	8,895	247	603,715	9,721	62,964	1,200,810	332,757	170,126	13,432	7,697	87,119	211,460	55,945	14,503,791
1928	7,594	79	453,204	8,416	93,768	960,000	225,413	155,681	24,292	14,700	64,020	234,650	96,079	12,709,041
1929	12,670	309	447,284	6,334	81,241	927,923	212,326	175,900	18,971	33,143	95,355	272,884	127,076	13,803,792
1930	5,640	242	430,571	9,939	85,776	903,113	212,528	122,943	10,603	14,615	77,601	208,743	85,352	12,821,665
1931	27,153	318	401,133	11,238	79,889	621,983	254,382	116,787	12,945	7,880	67,195	204,396	75,017	12,190,794
1932	230,386	158	413,961	12,668	93,319	427,208	196,914	122,808	7,432	7,038	94,337	165,272	80,406	11,305,731
1933	129,985	209	608,165	12,971	68,931	470,776	203,743	119,905	3,410	9,425	96,814	192,818	76,634	12,303,271
1934	69,400	516	614,010	11,706	68,715	335,685	207,870	97,900	10,193	4,615	89,940	194,140	47,333	11,905,806
1935	140,880	232	607,570	10,545	66,047	302,560	247,085	105,623	8,185	8,175	70,987	208,531	74,136	12,380,165

a Includes Bounty, £72,188.
b Includes Bounty, £40,744.
c Includes Bounty, £76,455.
d Includes Bounty, £100,700.
e Includes Relief and Special Assistance, £42,799.

k Includes Bounty, £90,733.
l Includes Bounty, £30,833.
m Includes Bounty, £73,540.
n Includes Bounty, £84,024.
o Includes Bounty, £106,539.

* Not included in Total Value all Crops.

Table No. 50.

SHOWING AVERAGE PRODUCE PER ACRE OF PRINCIPAL CROPS IN QUEENSLAND—RETURN FOR TEN YEARS.

Year.	GRAIN CROPS.							POTATOES.		Pumpkins.	Cotton Unginned.	SUGAR.		Arrowroot (Tubers).	Tobacco (Cured Leaf).	Coffee.	Hay (all Kinds).	Grapes.	Bananas.	Pineapples.	Oranges and Mandarins.	Mangoes.	Strawberries.	Apples.
	Wheat	Oats.	Barley.		Maize.	Rye.	Rice.	English.	Sweet.			Cane per Acre Crushed.	Sugar per Acre Crushed.											
			Malting.	Other.																				
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Tons.	Tons.	Tons.	Lb.	Tons.	Tons.	Tons.	Lb.	Lb.	Tons.	Lb.	Bunches.	Doz.	Bushels.	Bushels.	Quarts.	Bushels.
1926 ..	6·65	7·97	4·24	6·24	19·33	29·67	13·33	1·13	3·04	2·04	483	15·45	2·06	11·11	822	518	1·19	2,848	248	291	104	239	1,192	41
1927 ..	17·59	19·27	24·10	18·00	28·65	25·52	..	1·88	3·72	3·25	472	17·45	2·38	11·46	812	731	1·45	2,561	261	266	92	181	781	32
1928 ..	11·54	15·00	14·72	12·65	26·72	15·60	40·33	1·19	4·11	2·39	605	17·32	2·41	11·04	811	300	1·54	2,426	248	288	137	378	1,063	52
1929 ..	20·75	19·22	22·10	19·20	25·50	13·48	12·00	1·63	3·40	2·51	535	16·67	2·41	8·10	1,213	748	1·60	2,616	228	253	95	251	1,815	51
1930 ..	18·76	18·40	21·83	17·21	26·52	11·38	..	1·80	3·53	2·66	751	15·89	2·33	13·29	825	538	1·67	3,533	244	251	110	206	1,210	63
1931 ..	15·53	14·92	13·98	14·40	25·60	7·71	..	1·66	3·63	2·53	679	17·29	2·49	10·49	682	497	1·53	3,248	271	269	103	252	1,177	48
1932 ..	9·97	15·73	20·70	21·94	16·79	13·28	..	1·44	2·29	1·90	209	17·30	2·51	9·95	604	600	1·28	3,340	258	259	114	175	980	66
1933 ..	18·80	13·35	17·42	17·35	22·26	17·87	..	1·69	2·98	2·47	260	20·46	2·80	12·48	519	1,116	1·55	3,186	299	298	109	63	1,260	86
1934 ..	18·38	18·00	16·91	14·99	25·79	25·69	..	1·85	4·22	2·58	620	19·56	2·80	11·63	493	765	1·78	3,181	271	215	137	171	1,486	83
1935 ..	11·23	17·51	15·14	12·64	22·27	17·17	..	1·82	4·27	2·49	378	18·47	2·67	11·91	499	444	1·72	2,578	247	293	109	123	1,557	73
*	14·68	16·76	18·10	17·20	23·62	8·15	19·05	1·72	3·83	2·73	427	17·59	2·38	11·56	572	488	1·44	2,605	212	248	105	207	1,226	55

* Average for twenty years.

Table No. 51.

Return Showing Average Yield per Acre of Crops in each Division of the State for the Year 1935.

DIVISION.	GRAIN CROPS.							POTATOES.		Sugar-cane (to Acres Crushed).	Cotton.	Arrow-root (Tuber).	Tobacco (Dried Leaf).	Coffee.	Pump-kins.	Hay of all Kinds.	Grapes.	Bananas.	Pine-apples.	Oranges and Man-darins.
	Wheat.	Oats.	Barley, Malting.	Barley, Other.	Maize.	Rye.	Rice.	English.	Sweet.											
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels	Tons.	Tons.	Tons.	Lb.	Tons.	Lb.	Lb.	Tons.	Tons.	Lb.	Bunches.	Dozen.	Bushels.
Moreton	12·98	16·12	11·50	18·00	23·04	..	..	1·89	4·28	18·57	425	11·93	15	590	2·61	2·20	2,069	256	304	120
Wide Bay	11·38	17·25	16·00	..	24·22	30·00	..	1·49	4·70	20·40	368	11·32	375	419	3·36	1·99	1,267	237	247	124
Port Curtis	14·71	24·00	..	..	17·45	..	..	2·14	1·97	12·46	385	..	400	..	2·14	1·96	1,526	250	217	100
Edgecumbe	..	..	..	..	6·95	..	..	2·06	2·07	16·61	221	..	479	..	1·12	2·50	3,061	143	372	62
Rockingham	..	20·00	..	..	23·48	40·00	..	3·59	4·02	19·44	285	..	507	..	2·31	1·77	1,260	111	101	96
York Peninsula	..	..	..	..	25·12	..	..	2·00	3·00		..	..	150	..	3·00	..	..	124	49	33
Carpentaria	..	..	..	..	..	..	..	1·33	1·00	..	..	..	..	..	2·00	..	..	..	..	84
Central-western	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
South-western	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,614	..	..	81
Central	..	..	..	..	..	..	..	0·54	..	..	94	..	..	..	1·00	0·16	75	..	..	74
Maranoa	7·49	..	..	7·69	6·03	..	..	1·50	..	..	143	..	..	..	1·75	0·66	763	..	..	37
Downs	11·60	17·56	15·17	12·69	20·05	15·16	..	1·56	2·33	..	293	..	518	..	2·24	0·91	3,671	..	..	72
TOTAL AVERAGE YIELD, 1935	11·23	17·51	15·14	12·64	22·27	17·17	..	1·82	4·27	18·47	378	11·91	499	444	2·49	1·72	2,578	247	293	109
TOTAL AVERAGE YIELD, 1934	18·38	18·00	16·91	14·99	25·79	25·69	..	1·85	4·22	19·56	620	11·63	493	765	2·58	1·78	3,181	271	245	137
INCREASE, 1935	..	..	..	..	..	..	..	..	0·05	..	..	0·28	6	..	..	..	..	..	48	..
DECREASE, 1935	7·15	0·49	1·77	2·35	3·52	8·52	..	0·03	..	1·09	242	..	..	321	0·09	0·06	603	24	..	28

Table No. 52.

RETURN SHOWING THE AREA, YIELD, AND VALUE OF CROPS FOR THE YEAR 1935.

Description of Crop.		Area not Bearing.	Area Bearing.	Yield.	Value.
		Acres.	Acres.		£
Cereals	Barley, Malting	..	4,285	64,891 bushels	11,895
	Barley, Other	..	2.095	26,475 ,,	4,695
	Maize	..	157,370	3,504,045 ,,	674,117
	Oats	..	6,823	119,459 ,,	20,900
	Wheat	..	239,631	2,690,316 ,,	(a)597,059
	Other Cereals, Rice	..	..	..	..
	Other Cereals, Rye	..	161	2,764 ,,	690
Grass Seed		..	(c) 1,914	(c) 11,922 cwt.	(c) 15,964
Green Forage (All Kinds)		..	379,651	..	810,650
Hay	Lucerne	..	62,779	113,068 tons	565,340
	Oaten	..	2,928	3,284 ,,	18,062
	Wheaten	..	1,789	1,737 ,,	7,818
	Other	..	3,813	4,598 ,,	16,350
Straw	Oaten	..	..	68 ,,	306
	Wheaten	..	..	294 ,,	1,323
	Other	..	..	16 ,,	72
Pulse	Beans	..	13	1,118 bushels	1,340
	Peas	..	91	1,395 ,,	730
Root Crops	Arrowroot (Tubers)	..	860	10,239 tons	10,239
	Ginger	..	..	..	..
	Mangolds	..	429	2,771 ,,	5,542
	Onions	..	1,023	94,487 cwt.	23,622
	Potatoes, English	..	13,620	24,765 tons	229,076
	Potatoes, Sweet	..	2,503	10,691 ,,	42,764
	Turnips (includ'ng Swede Turnips)	..	85	432 ,,	2,808
Grapes	For Table Use	445	2,025	4,891,153 lb.	64,209
	For Wine	..	..	328,368 ,,	1,838
	For Drying Purposes	..	..	..	..
Sugar-cane		86,185	228,515	4,220,435 tons	7,073,049
Tobacco		..	3,117	1,555,083 lb. dried leaf	140,880
Market Gardens		..	950	..	43,754
Orchards and Fruit Gardens	Almonds	..	..	..	..
	Apples	2,039	3,413	249,998 bushels	70,987
	Apricots	57	88	5,323 ,,	2,575
	Bananas	1,496	7,004	1,733,378 bunches	302,560
	Cape Gooseberries	..	3	5,324 quarts	116
	Cherries	..	10	100 bushels	110
	Citrons	..	9	420 ,,	126
	Cocoanuts	..	320	6,500 dozen	1,500
	Custard Apples	12	181	36,520 bushels	10,465
	Figs	..	10	2,632 ,,	1,100
	Lemons	47	117	18,013 ,,	4,916
	Mangoes	33	152	18,715 ,,	8,185
	Nectarines	..	15	853 ,,	340
	Nuts (Queensland)	..	7	28 ,,	28
	Olives	..	..	..	..
	Oranges and Mandarins	587	2,635	287,769 ,,	105,623
	Passion Fruit	..	115	5,683 ,,	4,262
	Papaws	311	590	172,437 dozen	10,300
	Peaches	354	1,357	91,786 bushels	39,005
	Pears	42	183	17,029 ,,	4,257
	Persimmons	..	4	404 ,,	120
	Pineapples	1,234	4,545	1,333,415 dozen	247,085
	Plums	261	999	63,712 bushels	28,343
	Quinces	..	1	139 ,,	55
	Strawberries	..	140	218,000 quarts	8,175
	Watermelons	..	149	4,065 tons	26,480
	Other (Gardens and Orchards)	..	173	..	4,422
Other Crops	Broom Millet	..	129	129,616 lb. straw	1,875
	Cabbages and Cauliflowers	..	1,347	312,107 dozen	74,136
	Canary Seed	..	9,438	29,103 cwt.	38,798
	Coffee	4	14	6,210 lb. parchment	232
	Cotton, Unginned	..	54,947	20,785,418 lb. unginned	(b)376,456
	Cowpea	..	295	2,628 bushels	1,314
	Cucumbers	..	293	143,953 dozen	15,723
	Green Beans	..	2,001	162,536 Bags	104,493
	Green Peas	..	1,008	67,318 ,,	18,931
	Linseed	..	..	..	..
	Lucerne Seed	..	50	30 cwt.	252
	Millet Seed	..	(d) 635	(d) 8,923 ,,	(d) 9,746
	Panicum Seed	..	5,121	35,136 ,,	43,920
	Peanuts	..	9,472	9,635,614 lb.	84,185
	Pumpkins	..	13,368	33,341 tons	134,321
	Sunflower Seed	..	115	810 cwt.	1,012
	Tomatoes	..	4,659	471,111 bushels	208,531
	Tung Oil	..	1	87 lb.	13
		93,107	1,241,583		12,380,165
Total under Crop		1,334,690			
Land in fallow		83,735			
Area under permanent artificially sown grasses		822,143			
Previously cropped land lying idle during season		155,741			
New ground cleared but not ploughed during season		5,737			
Total area of arable land		2,402,046			

(a) Includes £42,799 Relief and Special Assistance.

(b) Includes Bounty, £106,539.

		Acres.	cwt.	£
(c) Grass Seed includes:—	Prairie Grass	82	985	1,379
	Sudan Grass	1,732	9,122	12,770
	Sorghum	100	1,815	1,815
(d) Millet Seed includes:—	White	238	1,795	2,244
	French	222	4,961	6,201
	Jap	175	2,167	1,301

Table No. 53.

DATES OF PLANTING AND HARVESTING.

PRINCIPAL CROPS IN QUEENSLAND.

NOTE.—Owing to the great size of Queensland with its irregular rainfall and great climate differences, this information is of necessity rather indefinite. Times of planting and consequently times of harvesting vary according to the local conditions.

The following are the dates of planting and harvesting as nearly as can be obtained :—

Crop.	Time of Planting.	Time of Harvesting.
Arrowroot	August to October	June, July, August
Barley (1) Skinless (2) Cape (3) Malting ..	For green fodder ; from third week in February at intervals until about second week in July. For grain ; usually sown in May	From mid October until end of November
NOTE.—Skinless and Cape Barley are mostly for feeding off, and malting barley for grain, although of course Skinless and Cape are also grown for grain.		
Canary Seed	Early planting for dual purposes, both fodder and seed made about the second to third week in April. Main planting in May, but may extend under favourable conditions till August	From mid October to end of November
Cotton	From first September to mid December, Central and South ; and till end of February, North	Beginning of March to end of October
Hay (1) Wheaten	From beginning of April to about middle of June, according to district	October and early November
NOTE.—A fair amount of hay is grown below the range between Toowoomba and Brisbane and harvested usually in October, as early maturing varieties are used.		
Hay (2) Oaten	March to end of May	Mid October to November
Maize	August to second week in January, according to district. Earlier districts, August, are usually fairly free from frost and "catch" crops are commonly planted. Main planting season in November in Southern and Central Queensland. In North Queensland (mainly Atherton Tableland) the season synchronises with the commencement of the wet season, usually starting about 1st January	May extend from latter end of December until latter end of August. Main harvest May, June, July
Sorghum, Millet, &c., (including Broom Millet and Millet grown for Fodder)	August to end of January, according to district	Sorghums about five months from planting. Millets earlier—ten weeks
NOTE.—The practice of late sowing is followed in some districts to synchronise with the wet season. Broom Millet commonly planted from September to November (inclusive), is harvested within five months of time of planting Seed.		
Sugar	April and October	Crushing from May to February. Canecutters start a day or two ahead of the crushers and thus keep them supplied
Wheat	Main season May and June. Range of planting April to first week in August. Customary in some districts to plant slow-maturing varieties in April, either feeding it off to dairy cattle and sheep or ultimately allowing it to mature into grain	Maranoa is earliest district. Harvesting in this district starts in some seasons in second week of October and continues to first week of November. In Darling Downs and other districts harvesting usually starts about the first week of November and is carried on until the end of that month.
Tobacco	Mid October to early December, but late planting not advocated	April
Potatoes	February and August	Three to four months after planting
	FRUIT.	
Bananas	October, November, December, January, and February	All year
Citrus Fruits	May to August, February	April to October
Custard Apples	June to August	May to August
Deciduous Fruits	May to August	End of November to end of March
Grapes	August and September	December to end of April
Mangoes	February, June, and July	September to March
Papaws	September and October, February and March	Autumn and Winter
Passion Fruit	September and October, February and March	All year. Main crops Summer and Autumn. Light Spring crop.
Pineapples	September to February	Christmas to end of March and July and August are two main crops. Off crops any time of year
Strawberries	March and April	May and October

Brisbane, 1st December, 1936.

J. B. BRIGDEN,
Government Statistician.

Annual Report of the Government Statistician on Livestock and Pastoral Production for the Year 1935.

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Increase or Decrease—		
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Numerical in 1935 (as at 31st December)	1	224
Increase, Proportional, during each year of last ten years	3	224
Killed for Farm or Station Use	31 52	235, 236 249
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In State, Return for ten years	2	224
Of Acres per Head in Pastoral Districts	4	225
Per Capita Population	4 36	225 240
Per Square Mile	4 36	225 240
Overland, Exported Alive	13 14, 15	227 228
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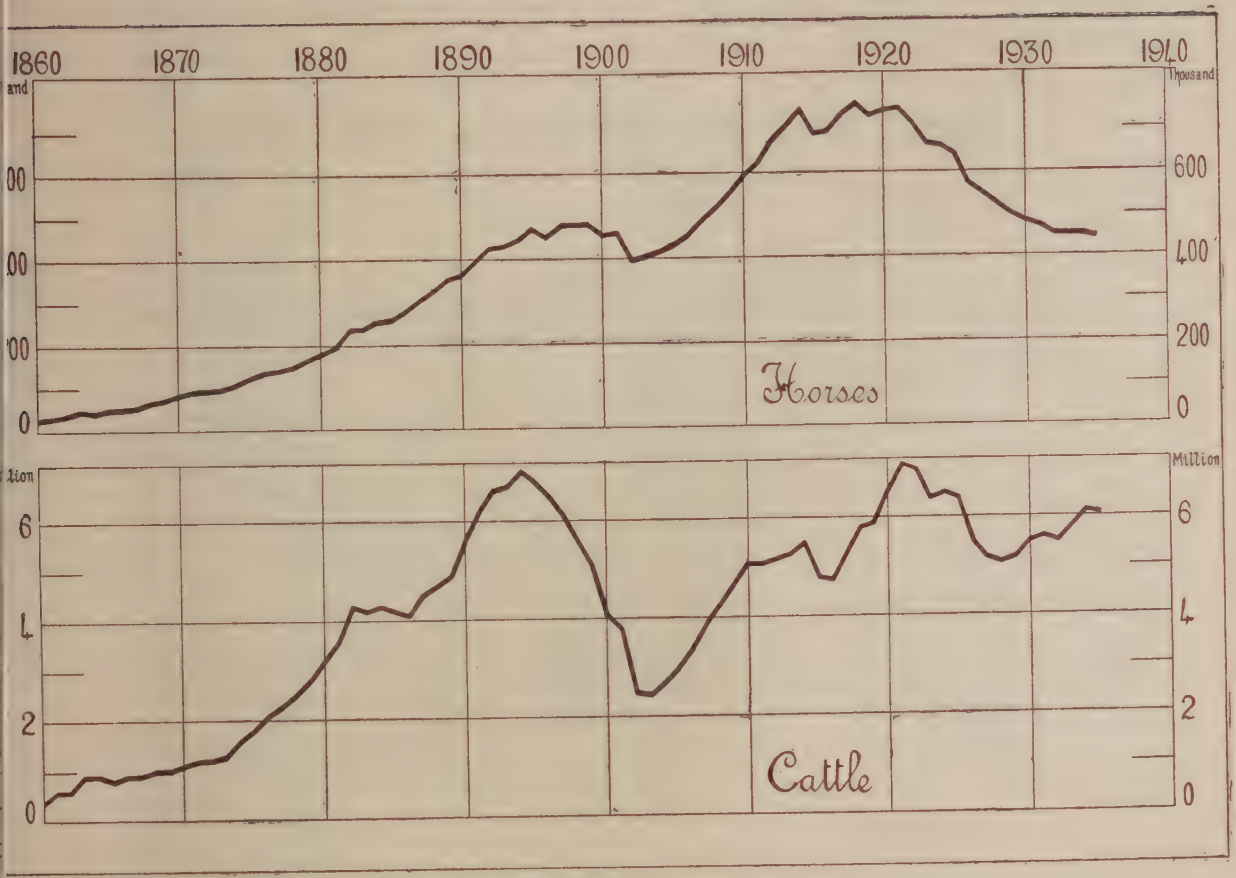
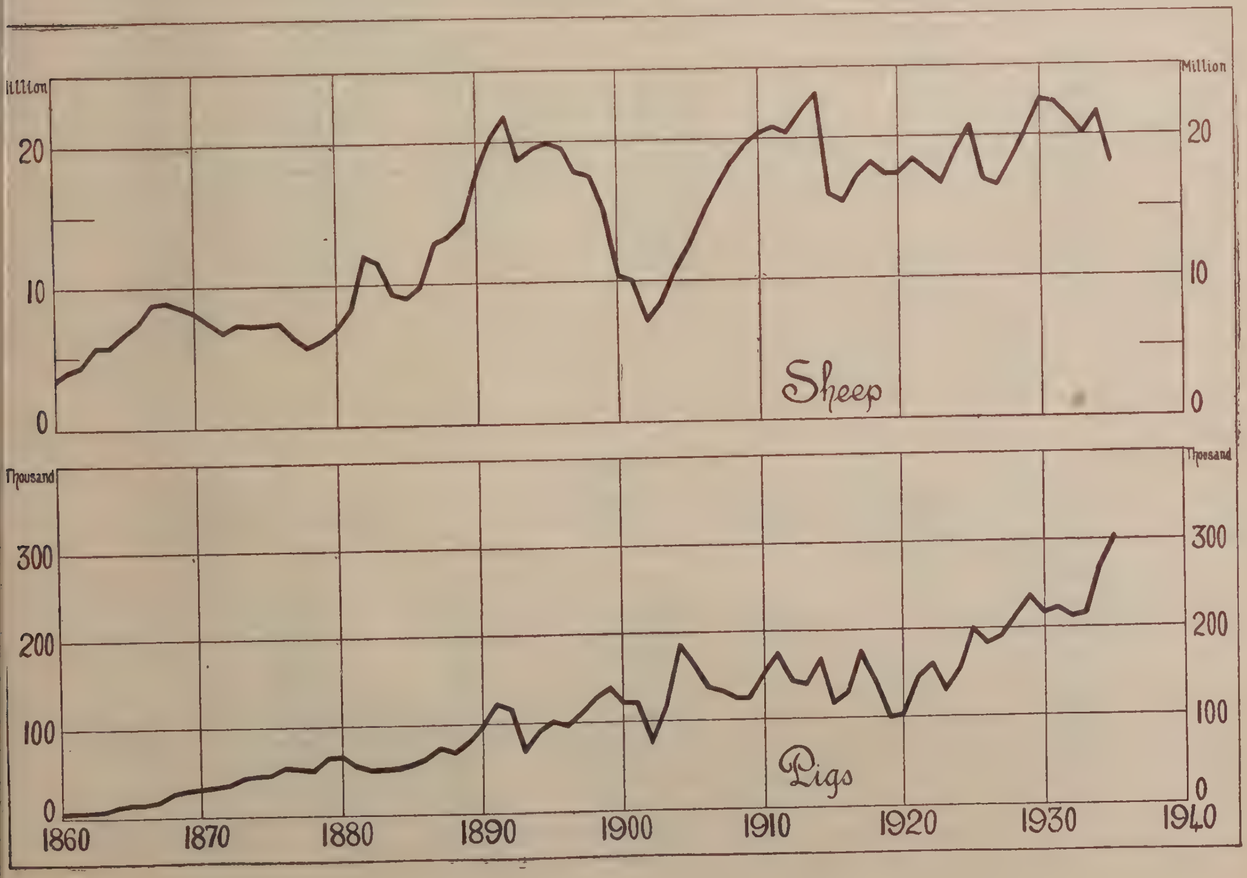
LIVESTOCK IN QUEENSLAND, SINCE 1860.





LIVE STOCK AND PASTORAL PRODUCTION.

Table No. 1.

Return showing the Number of Live Stock in the State for Two Years, and the Increase or Decrease for the Year 1935.

At 31st December.	Horses.	Cattle.	Sheep.	Pigs.
1934	448,604	6,052,641	21,574,182	269,873
1935	441,913	6,033,004	18,060,093	304,888
Numerical Increase in 1935	...	...	...	35,015
Numerical Decrease in 1935	6,691	19,637	3,514,089	...
Centesimal Increase in 1935	..	...	...	12·97
Centesimal Decrease in 1935	1·49	0·32	16·29	...

Table No. 2.

Return for Ten Years showing the Number of Horses, Cattle, Sheep, and Pigs in the State.

At 31st December.	Horses.	Cattle.	Sheep	Pigs.
1926	571,622	5,464,845	16,860,772	183,662
1927	548,333	5,225,804	16,642,385	191,947
1928	522,490	5,128,341	18,509,201	215,764
1929	500,104	5,208,588	20,324,303	236,037
1930	481,615	5,463,724	22,542,043	217,528
1931	469,474	5,550,399	22,324,278	222,686
1932	452,486	5,535,065	21,312,865	213,249
1933	450,024	5,781,170	20,072,804	217,448
1934	448,604	6,052,641	21,574,182	269,873
1935	441,913	6,033,004	18,060,093	304,888

Table No. 3.

Return for Ten Years showing the Centesimal Increase or Decrease in Live Stock.

Year ended 31st December.	Horses.	Cattle.	Sheep.	Pigs
1926	— 10·46	— 15·10	— 18·40	— 7·98
1927	— 4·07	— 4·37	— 1·30	4·51
1928	— 4·71	— 1·87	11·22	12·41
1929	— 4·28	1·56	9·81	9·40
1930	— 3·70	4·90	10·91	— 7·84
1931	— 2·52	1·59	— 0·97	2·37
1932	— 3·62	— 0·28	— 4·53	— 4·24
1933	— 0·54	4·45	— 5·82	0·20
1934	— 0·32	4·70	7·48	24·11
1935	— 1·49	— 0·32	— 16·29	12·97

— Decrease.

Table No. 4.

RETURN SHOWING THE DENSITY AND THE PROPORTION OF THE VARIOUS KINDS OF LIVE STOCK IN THE SEVERAL PASTORAL DISTRICTS AND THE NUMBER PER CAPITA IN THE STATE AS AT 31ST DECEMBER, 1935.

In Converting Horses and Cattle to Terms of Sheep, Ten Head of Sheep are Taken as Equal to One Horse or Head of Cattle.

Pastoral District.	Area in Acres.	Centesimal Ratio of Area of District to Area of State.	Horses.			Cattle.			Sheep.			All Kinds in Terms of Sheep.		
			Acres per Head.	Number per Square Mile.	Percentage to Total in State.	Acres per Head.	Number per Square Mile.	Percentage to Total in State.	Acres per Head.	Number per Square Mile.	Percentage to Total in State.	Acres per Head.	Number per Square Mile.	Percentage to Total in State.
Burke	65,383,040	15·24	2,199	0·29	6·73	122	5·24	8·88	40	16·18	9·15	8·95	71·53	8·82
Burnett	7,972,480	1·86	222	2·88	8·12	14	46·85	9·67	1,320	0·49	0·03	1·29	497·82	7·49
Cook	63,601,920	14·82	1,860	0·34	7·74	125	5·13	8·46	176,183	0·00	0·00	11·68	54·78	6·57
Darling Downs ..	16,249,600	3·79	259	2·47	14·22	25	25·27	10·64	6	100·72	14·16	1·69	378·19	11·60
Gregory North ..	54,266,240	12·64	5,711	0·11	2·15	331	1·93	2·72	52	12·22	5·74	19·58	32·68	3·35
Gregory South ..	31,617,920	7·37	5,254	0·12	1·36	318	2·01	1·65	79	8·06	2·21	21·76	29·41	1·75
Leichhardt ..	30,946,560	7·21	804	0·80	8·71	40	16·07	12·88	27	23·59	6·32	3·33	192·25	11·23
Maranoa	25,110,400	5·85	1,237	0·52	4·59	136	4·71	3·06	7	95·28	20·70	4·34	147·55	6·99
Mitchell	35,431,680	8·26	1,846	0·35	4·34	512	1·25	1·15	8	75·49	23·14	7·00	91·45	6·11
Moreton	5,649,920	1·32	104	6·16	12·31	10	67·24	9·84	510	1·26	0·06	0·87	735·29	7·84
North Kennedy ..	21,832,960	5·09	501	1·28	9·87	45	14·35	8·11	5,392	0·12	0·02	4·09	156·41	6·44
Port Curtis ..	8,994,560	2·09	333	1·92	6·11	17	38·19	8·90	313	2·04	0·16	1·59	403·15	6·84
South Kennedy ..	19,528,960	4·55	868	0·74	5·09	54	11·77	5·95	66	9·70	1·64	4·75	134·82	4·97
Warrego	37,333,760	8·70	2,939	0·22	2·88	311	2·06	1·99	12	51·55	16·65	8·61	74·33	5·24
Wide Bay	5,200,000	1·21	204	3·14	5·78	14	45·29	6·10	1,230	0·52	0·02	1·32	484·87	4·76
STATE ..	429,120,000	100·00	971	0·66	100·00	71	9·00	100·00	24	26·94	100·00	5·18	123·50	100·00
Number per Capita Population ..			0·46			6·21			18·60			85·31		

Table No 5.

The following table shows, from the latest information available, the live stock density in various countries.

	Live Stock in Terms of Sheep per Square Mile.
Queensland	124
New South Wales	311
Victoria	477
Argentina	414
Australia	91
Germany	1,250
Great Britain and North Ireland	1,297
Irish Free State	1,781
Soviet Republics	86
Union of South Africa	309
United States of America	272

Table No. 6.

RETURN SHOWING NUMBER AND PROPORTION OF HORSES, CATTLE, SHEEP, AND PIGS IN THE SOUTHERN CENTRAL, AND NORTHERN DIVISIONS OF THE STATE AS AT 31ST DECEMBER, 1935.

Division.	Horses.		Cattle.		Sheep.		Pigs.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Southern	223,671	50·61	2,765,225	45·84	9,812,659	54·33	277,471	91·01
Central	94,963	21·49	1,524,691	25·27	6,504,151	36·02	10,387	3·41
Northern	123,279	27·90	1,743,088	28·89	1,743,283	9·65	17,030	5·58
Total	441,913	100·00	6,033,004	100·00	18,060,093	100·00	304,888	100·00

Table No. 7.

RETURN SHOWING NUMBER OF HORSES, CATTLE, AND SHEEP PER SQUARE MILE AND PER CAPITA OF POPULATION IN THE SOUTHERN, CENTRAL, AND NORTHERN DIVISIONS OF THE STATE AS AT 31ST DECEMBER, 1935.

Division.	Area in Square Miles.	Population. *	Horses.		Cattle.		Sheep.		All Kinds in Terms of Sheep.	
			Per Square Mile.	Per Capita of Population.	Per Square Mile.	Per Capita of Population.	Per Square Mile.	Per Capita of Population.	Per Square Mile.	Per Capita of Population.
Southern ..	209,980	683,130	1·07	0·33	13·17	4·05	46·73	14·36	189·07	58·12
Central ..	209,340	98,211	0·45	0·97	7·28	15·52	31·07	66·23	108·44	231·14
Northern ..	251,180	189,378	0·49	0·65	6·94	9·20	6·94	9·21	81·24	107·76
Total ..	670,500	970,719	0·66	0·46	9·00	6·21	26·94	18·60	123·50	85·31

* Estimated as at 31st December, 1935.

Table No. 8.

RETURN SHOWING THE NUMBER OF HORSES IMPORTED AND EXPORTED INTO AND FROM THE STATE FOR THE YEAR 1935.

HORSES IMPORTED DURING 1935.					HORSES EXPORTED DURING 1935.				
Country.	Number.		Value.		Country.	Number.		Value.	
Oversea—			£	£	*Oversea—*			£	£
New Zealand ..	3		330		British Malaya ..	6		110	
					Ceylon	1		1,000	
					Hong Kong ..	9		135	
					India	2,195		35,113	
					Netherlands (East Indies)	255		4,730	
					Papua	5		69	
					Philippines	1		75	
					Siam	3		150	
					Territory of New Guinea	6		201	
		3		330			2,481		41,583
Interstate (by land)—					*Interstate (by land)—*				
New South Wales	5,811		39,726		New South Wales ..	14,104		111,582	
Northern Territory	586		2,264		Northern Territory	1,027		3,984	
South Australia ..	44		154		South Australia ..	220		880	
		6,441		42,144			15,351		116,446
		6,444		£42,474			17,832		£158,029

Table No. 9.

RETURN FOR TEN YEARS SHOWING THE NUMBER OF ENTIRE AND OTHER HORSES.

At 31st December.	Entire Horses.	Other Horses.	Total.
1926	2,221	569,401	571,622
1927	1,951	546,382	548,333
1928	1,750	520,740	522,490
1929	1,700	498,404	500,104
1930	1,805	479,810	481,615
1931	2,221	467,253	469,474
1932	2,147	450,339	452,486
1933	2,389	447.635	450,024
1934	2,358	446,246	448,604
1935	2,534	439,379	441,913

Table No. 10.

RETURN FOR TEN YEARS SHOWING THE NUMBER OF OWNERS AND THE SIZES OF HERDS UNDER VARIOUS GROUPINGS, ALSO THE CENTESIMAL INCREASE OR DECREASE FOR THE YEAR 1935.

For Details of Sizes of Herds of Cattle in Pastoral Districts, for the Year 1935, see Table No. 37.

At 31st December.	1 to 100.		101 to 200.		201 to 300.		301 to 500.		501 to 1,000.	
	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle.
1926 ..	38,922	1,048,964	3,781	635,735	*	*	819	321,806	657	467,437
1927 ..	38,234	1,058,777	3,841	640,761	*	*	791	307,384	639	460,477
1928 ..	37,501	1,086,823	4,017	662,848	*	*	787	309,195	637	451,767
1929 ..	37,376	1,113,944	4,359	713,674	*	*	841	326,676	633	447,727
1930 ..	37,590	1,153,767	4,709	768,192	*	*	867	338,439	652	458,244
1931 ..	38,715	1,219,244	5,006	822,241	*	*	889	346,963	679	477,297
1932 ..	39,805	1,254,112	4,978	812,966	*	*	856	330,355	708	495,940
1933 ..	40,064	1,297,024	3,969	554,522	1,126	280,329	878	343,673	718	510,694
1934 ..	40,204	1,332,945	4,195	587,156	1,195	296,263	921	358,358	771	544,854
1935 ..	40,138	1,323,624	4,216	590,976	1,229	304,823	921	358,926	800	563,413

At 31st December.	1,001 to 5,000.		5,001 to 10,000.		10,001 and Upwards.		Totals.		Average Size of Herds.
	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle.	
1926	617	1,303,068	113	776,324	49	911,511	44,958	5,464,845	122
1927	609	1,278,875	106	731,917	40	747,613	44,260	5,225,804	118
1928	589	1,238,377	93	643,522	43	735,809	43,667	5,128,341	117
1929	601	1,256,436	106	729,907	37	620,224	43,953	5,208,588	119
1930	640	1,330,754	98	658,532	46	755,796	44,602	5,463,724	122
1931	617	1,286,905	105	704,694	40	693,055	46,051	5,550,399	121
1932	611	1,286,119	101	708,518	37	647,055	47,096	5,535,065	118
1933	645	1,321,670	108	766,659	41	706,599	47,549	5,781,170	122
1934	666	1,375,325	111	795,913	47	761,827	48,110	6,052,641	126
1935	682	1,379,209	113	795,503	43	716,530	48,142	6,033,004	125
Increase per cent., 1935 on 1934							0.07	— 0·32	..

* Included in Group 101 to 200.

Table No. 11.

RETURN FOR TEN YEARS SHOWING THE NUMBER OF OWNERS AND THE SIZES OF FLOCKS UNDER VARIOUS GROUPINGS, ALSO THE CENTESIMAL INCREASE OR DECREASE FOR THE YEAR 1935.

For Details of Sizes of Flocks of Sheep in Pastoral Districts for the Year 1935 see Table No. 39.

At 31st December.	1 to 500.		501 to 1,000.		1,001 to 2,000.		2,001 to 5,000.		5,001 to 10,000.	
	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.
1926 ..	1,917	254,351	474	357,721	604	908,897	1,027	3,389,550	457	3,207,379
1927 ..	2,024	273,668	554	410,614	709	1,071,703	1,020	3,371,043	471	3,220,135
1928 ..	1,948	270,670	548	411,937	758	1,129,591	1,095	3,637,181	553	3,830,572
1929 ..	1,913	252,107	548	415,464	766	1,148,611	1,234	4,088,974	662	4,560,694
1930 ..	1,944	245,755	520	398,080	673	1,006,284	1,214	4,078,142	734	5,053,772
1931 ..	1,911	227,967	526	401,406	677	1,002,776	1,231	4,179,403	772	5,348,174
1932 ..	1,788	214,150	551	415,076	679	1,026,160	1,250	4,262,626	767	5,341,945
1933 ..	1,705	212,286	527	392,199	710	1,087,876	1,243	4,217,809	787	5,442,649
1934 ..	1,587	195,446	518	391,620	698	1,055,507	1,371	4,714,367	770	5,343,165
1935 ..	1,730	224,230	635	487,052	750	1,130,779	1,446	4,839,661	613	4,225,195

At 31st December.	10,001 to 20,000.		20,001 to 50,000.		50,001 to 100,000.		100,001 and Upwards.		Totals.		Average Size of Flocks.
	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	
1926 ..	235	3,240,198	120	3,726,023	23	1,423,600	3	353,053	4,860	16,860,772	3,469
1927 ..	234	3,280,459	109	3,364,725	22	1,362,817	2	287,221	5,145	16,642,385	3,235
1928 ..	279	3,899,803	113	3,399,575	24	1,570,488	3	359,384	5,321	18,509,201	3,479
1929 ..	286	4,021,226	127	3,791,241	25	1,570,079	4	475,907	5,565	20,324,303	3,652
1930 ..	313	4,356,680	158	4,635,047	33	2,261,447	4	506,836	5,593	22,542,043	4,030
1931 ..	303	4,144,829	153	4,445,418	35	2,302,423	2	271,882	5,610	22,324,278	3,979
1932 ..	302	4,132,447	109	3,329,982	35	2,323,938	2	266,541	5,483	21,312,865	3,887
1933 ..	273	3,766,895	113	3,338,748	23	1,490,490	1	123,852	5,382	20,072,804	3,730
1934 ..	302	4,128,259	126	3,742,267	29	1,882,996	1	120,555	5,402	21,574,182	3,994
1935 ..	246	3,378,764	101	2,926,491	11	710,121	1	137,800	5,533	18,060,093	3,264
Increase per cent., 1935 on 1934									2·43	–16·29	..

Table No. 12.

RETURN FOR TEN YEARS SHOWING THE RESULTS OF LAMBING, LOSSES, ETC., IN THE STATE.

For Details for the Year 1935 *see Tables No.* 52 *and* 53.

—	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.
otal Sheep on 1st January	20,663,323	16,860,772	16,642,385	18,509,201	20,324,303	22,542,043	22,324,278	21,312,865	20,072,804	21,574,182
wes mated with Rams ..	6,557.034	6,980,529	7,820,137	8,114,502	9,158,966	9,107,493	8,877,345	7,526,979	9,454,686	6,843,471
ambs Marked	2,245,998	2,481,955	3,995,065	4,257,250	5,625,924	5,013,286	4,243,356	3,336,321	4,979,373	2,115,883
ercentage of Lambing ..	34·25	35·56	51·09	52·46	61·43	55·05	47·80	44·32	52·67	30·92
urchases and Transfers ..	3,889,789	4,371,786	5,095,420	4,332,101	3,334,721	3,109,122	3,076,159	4,447,856	3,602,919	4,239,105
les and Transfers ..	4,409,589	4,429,268	5,331,870	4,693,815	4,642,376	5,621,848	5,141,507	5,821,505	4,777,149	5,126,264
osses	5,335,207	2,449,231	1,693,954	1,851,105	1,840,943	2,449,784	2,920,545	2,935,089	2,042,567	4,488,006
illed for Food on Holding	193,542	193,629	197,845	229,329	259,586	268,541	268,876	267,644	261,198	254,807
otal Sheep on 31st December	16,860,772	16,642,385	18,509,201	20,324,303	22,542,043	22,324,278	21,312,865	20,072,804	21,574,182	18,060,093
ins obtained†	201,169	232,920	205,797	208,162	219,347	206,204	139,674	159,351	182,856	172,583

† Year ended 30th June.

Table No. 13.

RETURN FOR TWO YEARS SHOWING THE NUMBER OF CATTLE, ETC., EXPORTED AND NUMBER KILLED FOR EXPORT OR FOR HOME CONSUMPTION.

YEAR ENDED 31ST DECEMBER.	CATTLE AND CALVES.		SHEEP AND LAMBS.		PIGS.	
	1934.	1935.	1934.	1935.	1934.	1935.
Exported, less number imported alive oversea	48	53	142	45	3	— 5
Exported, less number imported alive overland	213,471	47,738	242,634	135,854	— 1,276	— 553
Number killed for export (meatworks, bacon factories, and abattoir)	393,886	420,966	247,773	130,034	74,187	113,479
Number killed for home consumption (meatworks, bacon factories, abattoir, slaughter-houses, stations, and farms)	*403,936	*438,618	*1,025,901	*889,694	*374,282	*408,185
Total	1,011,341	907,375	1,516,450	1,155,627	447,196	521,106

* Includes condemned :—	1934.	1935.
Cattle	7,695	10,167
Sheep	2,399	2,018
Pigs	4,578	5,485

Table No. 14.

RETURN FOR TEN YEARS SHOWING THE NUMBER OF HORSES, CATTLE, SHEEP, AND PIGS IMPORTED INTO AND EXPORTED FROM THE STATE OVERLAND AND OVERSEA.

Year.		Horses.		Cattle.		Sheep.		Pigs.	
		Inward.	Outward.	Inward.	Outward.	Inward.	Outward.	Inward.	Outward.
		Number.	Number.	Number.	Number.	Number.	Number.	Number.	Number
1926	Overland, Calendar year..	11,299	15,151	14,530	335,600	448,586	684,498	†	†
	Overland, Financial year..	22,757	20,619	18,592	335,724	225,579	791,533	†	†
	Oversea, Calendar year ..	..	2,428	..	72	..	6	..	3
	Oversea, Financial year ..	..	3,609	..	49	..	..	..	5
1927	Overland, Calendar year..	11,461	9,935	108,192	168,730	1,150,437	457,897	†	†
	Overland, Financial year..	14,696	20,876	71,722	265,384	937,030	630,207	†	†
	Oversea, Calendar year ..	..	634	..	54	..	22	..	50
	Oversea, Financial year ..	..	2,839	..	80	..	17	..	11
1928	Overland, Jan. to June ..	3,804	6,364	4,129	264,225	422,589	351,990	†	†
	Overland, July to Dec. ..	3,277	5,203	5,145	101,877	328,665	317,304	126	3,174
	Oversea, Jan. to June ..	5	2,137	..	18	..	54	..	24
	Oversea, July to Dec. ..								42
1929	Overland, Jan. to June ..	23,561	6,232	51,614	85,028	394,970	220,978	143	4,287
	Overland, July to Dec. ..	4,904	7,682	34,049	95,550	233,915	314,820	134	12,244
	Oversea, Jan. to June ..	..	2,906	..	21	..	316	..	7
	Oversea, July to Dec. ..								20
1930	Overland, Jan. to June ..	5,271	8,579	66,092	84,111	397,616	346,064	201	7,373
	Overland, July to Dec. ..	9,470	10,460	34,709	142,702	215,204	543,794	595	3,751
	Oversea, Jan. to June ..	..	2,492	13	25	..	344	..	3
	Oversea, July to Dec. ..								5
1931	Overland, Jan. to June ..	4,974	8,212	28,147	122,681	156,266	382,188	627	3,497
	Overland, July to Dec. ..	6,783	11,819	24,226	134,406	121,501	812,607	694	1,488
	Oversea, Jan. to June ..	1	147	10	..	..	170	..	..
	Oversea, July to Dec. ..	..	1,822	..	13	..	310	..	8
1932	Overland, Jan. to June ..	5,368	11,017	13,595	128,879	118,561	537,096	779	2,792
	Overland, July to Dec. ..	5,925	11,666	17,430	111,451	171,706	566,031	903	591
*	Oversea, Jan. to June ..	..	2	..	4	..	260	..	..
	Oversea, July to Dec. ..	1	942	..	13	..	..	..	..
1933	Overland, Jan. to June ..	6,160	7,828	21,442	61,104	264,519	172,063	792	1,431
	Overland, July to Dec. ..	5,789	8,925	24,700	127,664	209,042	318,852	476	391
	Oversea, Jan. to June ..	1	8	2	1	..	41	1	3
	Oversea, July to Dec. ..	..	1,820	..	29	..	106	2	1
1934	Overland, Jan. to June ..	5,024	10,237	48,082	160,492	177,227	273,279	1,314	792
	Overland, July to Dec. ..	4,108	9,915	17,465	118,526	165,664	312,246	1,135	381
	Oversea, Jan. to June ..	..	6	2	13	..	98	..	3
	Oversea, July to Dec. ..	..	2,323	..	37	..	44	..	..
1935	Overland, Jan. to June ..	3,289	8,399	22,101	56,259	161,757	350,842	803	485
	Overland, July to Dec. ..	3,152	6,952	27,883	41,463	284,626	231,395	1,006	771
	Oversea, Jan. to June ..	..	110	12	18	..	24	3	2
	Oversea, July to Dec. ..	3	2,371	..	47	..	21	6	2
1936	Overland, Jan. to June ..	3,609	8,851	51,649	107,482	201,611	397,332	2,493	912
	Oversea, Jan. to June ..	..	3	3	21	..	10	..	..

† Not available.

* Interstate coastwise traffic for the six months ended 30th June, 1932, was as follows:—Inward—Horses 47, Value £3,913; Cattle 17, Value £827; Sheep 6, Value £240; Pigs 2, Value £50. Outward—Nil.

Table No. 15.

RETURN OF LIVE STOCK AND WOOL CROSSING THE QUEENSLAND BORDERS DURING THE YEAR ENDED 31ST DECEMBER, 1935.

—	Horses.		Cattle.		Pigs.		Pigs.		Wool.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Bales.	*Value.
		£		£		£		£	No.	£
INWARD.										
From—										
New South Wales ..	5,811	39,726	30,398	76,088	429,361	264,508	1,809	3,786	4,857	84,107
Northern Territory ..	586	2,264	19,586	45,522	17,022	7,761	..	..	..	..
South Australia ..	44	154	..	..	..	..	..	..	..	..
Totals	6,441	42,144	49,984	121,610	446,383	272,269	1,809	3,786	4,857	84,107
OUTWARD.										
To—										
New South Wales ..	14,104	111,582	83,406	332,365	564,337	340,000	1,256	2,681	9,111	156,808
Northern Territory ..	1,027	3,984	10,380	28,410	17,900	4,725	..	..	..	..
South Australia ..	220	880	3,936	16,432	..	..	..	..	†341	8,263
Totals	15,351	116,446	97,722	377,207	582,237	344,725	1,256	2,681	†9,452	165,071

* Based on Brisbane Market Value.

† Including 64 bales of scoured wool.

Table No. 16.

Return showing the Number, &c., of Bacon-Curing and Meat-Preserving Works for the Year ended 30th June, 1935, and Increase or Decrease on Previous Year.

Kind of Establishment.	Number.	Number of Workers Employed. (*a*)	Value of Machinery and Plant.	Value of Land and Buildings.	Value of Output.
			£	£	£
Bacon Curing	9	628	122,742	222,362	1,312,235
Meat Preserving (*b*)	9	2,361	648,985	1,156,694	4,122,288
Total 1934-35	18	2,989	771,727	1,379,056	5,434,523
Total 1933-34	17	2,767	712,156	1,202,335	4,395,651
Increase 1934-35 ..	1	222	59,571	176,721	1,038,872
Decrease 1934-35 ..	..	..	..	..	..

(*a*) Average number during period in operation.
(*b*) Not including 2 Rabbit Freezing works.

Table No. 17.

Return showing Number of Pigs Slaughtered in the several Petty Sessions Districts of the State, together with the Production of Pork, Bacon, and Ham, for the Year 1934–35.

Petty Sessions District.	Pigs Slaughtered.	Fresh and Salt Pork.	Bacon and Ham.
	Number.	Lb.	Lb.
Beaudesert	816	67,822	778
Bowen	425	32,391	160
Brisbane	388,776	13,099,442	15,986,367
Bundaberg	2,898	241,975	7,429
Cleveland	91	13,187	200
Clifton	360	25,334	8,889
Crow's Nest	308	27,573	3,830
Dalby	764	53,226	9,468
Dugandan	774	59,544	3,565
Eidsvold	217	17,677	3,770
Gatton	307	25,101	7,271
Gayndah..	439	40,808	480
Gin Gin	203	4,807	19,413
Gladstone	793	61,800	5,456
Harrisville	242	14,520	11,213
Laidley	606	52,823	5,770
Logan	719	60,295	10,554
Lowood	271	31,091	3,200
Mackay	3,632	276,251	363
Marburg	187	22,580	210
Mareeba	9,493	44,430	650,061
Maryborough	10,610	180,526	671,119
Mount Isa	641	30,721	..
Nanango	1,262	87,737	18,680
Oakey	668	60,656	10,127
Rockhampton	19,769	1,280,784	406,372
Roma	728	58,060	2,450
Toogoolawah	309	27,825	252
Toowoomba	75,350	515,378	5,008,931
Warwick	4,848	71,874	314,962
Wienholt	1,048	90,210	3,972
All Other Districts	30,541	2,323,247	23,034
Total, State	558,095	18,999,695	23,198,346
Total on Farms	5,606	420,859	181,272
Total in Factories	492,416	13,601,567	23,017,074
Total in Slaughter-houses	60,073	4,977,269	..
Total, State	* 558,095	18,999,695	23,198,346

* Including 5,899 Pigs slaughtered but subsequently condemned.

Figures in this table are for Financial year, therefore do not agree with those in Tables No. 13 and No. 42 which refer to calendar year.

Table No. 18.

Return for Ten Years showing the Quantity and Condition of Wool Sold in the Brisbane Market and the Amount Realised.

Year ended 30th June.	No. of sales.	Greasy Wool.			Scoured Wool.			Total Greasy and Scoured Wool.		
		No. of bales.	Weight in lb.	Amount Realised.	No. of bales.	Weight in lb.	Amount Realised.	No. of bales.	Weight in lb.	Amount Realised.
				£			£			£
1927	7	288,351	94,904,935	7,076,868	28,289	6,079,800	847,811	316,640	100,984,735	7,924,679
1928	7	313,793	103,338,556	8,238,293	27,986	5,961,162	909,878	341,779	109,299,718	9,148,171
1929	8	346,259	113,454,571	7,410,209	30,002	6,201,171	770,577	376,261	119,655,742	8,180,786
1930	10	377,730	122,773,424	5,247,977	33,103	6,744,969	517,696	410,833	129,518,393	5,765,673
1931	10	427,167	139,749,813	5,403,678	29,872	6,171,041	354,427	457,039	145,920,854	5,758,105
1932	11	408,417	131,610,148	4,242,897	37,660	7,691,122	407,395	446,077	139,301,270	4,650,292
1933	10	436,385	141,636,469	5,596,119	64,137	13,387,762	907,239	500,522	155,024,231	6,503,358
1934	7	302,938	97,302,028	6,289,245	50,098	10,469,300	1,164,405	353,036	107,771,328	7,453,650
1935	13	490,804	156,152,802	6,755,127	60,135	12,149,794	941,127	550,939	168,302,596	7,696,254
1936	8	347,486	108,530,704	6,301,535	39,084	8,014,633	758,994	386,570	116,545,337	7,060,529

Table No. 19.

RETURN FOR TEN YEARS SHOWING THE AVERAGE PRICE PER LB. REALISED AT THE BRISBANE WOOL SALES.

Year ended 30th June.	1927.	1928.	1929.	1930.	1931.	1932	1933.	1934.	1935.	1936.
	d.	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*
Greasy wool	17·90	19·13	15·68	10·26	9·28	7·74	9·48	15·51	10·38	13·93
Scoured wool	33·47	36·63	29·82	18·42	13·78	12·71	16·26	26·69	18·59	22·73

Table No. 20.

WOOL.

RETURN FOR TEN YEARS SHOWING THE NUMBER OF SHEEP SHORN AND THE WOOL PRODUCED IN QUEENSLAND

For details for the year ended 30th June, 1935, see Tables No. 46, 47, and 48.

Production of Wool.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.
Number of sheep shorn	20,552,992	17,600,510	16,961,698	18,438,630	20,733,054
Result off shears only, lb. net—					
Greasy wool	129,361,017	104,308,040	110,611,493	121,219,173	138,030,120
Scoured wool	7,156,291	5,964,445	6,085,234	6,234,550	8,278,574
*Above expressed as Greasy	143,673,599	116,236,930	122,781,961	134,727,365	155,967,030
Average weight, lb.—					
Per Greasy bale	341	335	335	333	333
Per Scoured bale	229	221	217	17	222
Per Fleece in the Grease	6·99	6·60	7·24	7·31	7·52
Total wool production (Greasy), including quantity fellmongered, exported on skins, and utilised, lb.	**146,985,689**	**119,847,967**	**126,429,938**	**138,988,930**	**‡161,087,873**
Estimated value of production	†£10,993,305	†£9,423,046	†£10,635,919	†£9,943,540	†£7,785,914

Production of Wool.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
Number of sheep shorn	22,778,181	23,183,705	22,407,859	20,776,320	22,609,717
Result off Shears only, lb. net—					
Greasy wool	158,468,047	156,199,991	146,708,631	137,326,080	142,036,522
Scoured wool	7,445,725	9,204,320	12,449,333	10,868,347	11,269,052
*Above expressed as Greasy	174,600,451	176,142,684	173,682,186	160,874,165	166,452,800
Average weight, lb.—					
Per Greasy bale	333	327	329	328	321
Per Scoured bale	215	207	207	211	208
Per Fleece in the Grease	7·67	7·60	7·75	7·74	7·36
Total wool production (Greasy), including quantity fellmongered, exported on skins, and utilised, lb.	‡182,061,407	‡184,716,462	‡185,833,546	‡169,989,516	‡174,088,413
Estimated value of production	†£7,479,689	†£6,626,703	†£6,976,501	‖£10,227,703	‖£7,587,353

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* From 1st July, 1928, scoured wool has been converted into the estimated greasy equivalent on the assumption that 1 lb. scoured wool is produced from $2\frac{1}{8}$ lb. greasy. In previous years a ratio of 1 to 2 was used.

† Based on Export value (Financial Year) as declared to the Customs Department. ‡ Including dead wool (not previously collected).

‖ Based on average prices realised at Brisbane Wool Sales.

Table No. 21.

RETURN FOR TEN YEARS SHOWING THE AVERAGE OVERSEA EXPORT VALUE PER LB. OF WOOL FROM QUEENSLAND.

Year ended 30th June.	1927.	1928.	1929.	1930.	1931.	1932	1933.	1934.	1935.	1936.
	d.	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*
Greasy wool	18·87	20·19	17·17	11·60	9·86	8·61	9·01	15·11	10·53	14·44
Scoured wool	31·40	34·48	31·44	22·34	14·76	13·45	14·73	24·10	18·22	21·22

Table No. 22.

RETURN FOR TEN YEARS SHOWING THE QUANTITY AND VALUE OF WOOL AND WOOLLED SKINS EXPORTED OVERSEA FROM QUEENSALND.

Year ended 30th June.	Greasy.		Scoured.		Woolled Skins.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Lb.	£	Lb.	£	Lb.	£
1927	92,434,753	7,267,525	9,371,143	1,225,868	3,580,864	171,847
1928	98,572,221	8,290,737	10,645,113	1,529,291	3,330,919	179,349
1929	115,370,996	8,256,965	11,785,858	1,544,164	4,287,380	221,428
1930	122,023,953	5,898,865	10,911,832	1,015,954	5,720,343	177,406
1931	146,129,752	6,005,219	10,890,695	669,823	5,758,382	112,783
1932	149,541,226	5,367,646	14,198,049	795,779	5,018,095	77,968
1933	142,716,884	5,359,620	17,193,918	1,055,563	4,112,509	67,419
1934	128,534,115	8,094,432	18,716,446	1,879,241	2,934,525	84,241
1935	137,837,068	6,047,655	17,424,690	1,322,716	3,042,533	66,529
1936	109,839,914	6,603,031	14,334,775	1,267,637	2,076,107	68,150

Table No. 23.

RETURN FOR TEN YEARS SHOWING THE AMOUNT OF SCOURED WOOL USED IN MANUFACTURE.

—	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32	1932-33.	1933-34.	1934-35	1935-36.
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Ln.	Lb.	Lb.	Lb.
Quantity of Scoured Wool used in Manufacture ..	625,342	625,852	477,008	572,237	440,756	541,451	794,559	796,547	682,367	650,142

Table No. 24.

RETURN FOR TWO YEARS SHOWING THE EXPORT Oversea OF HOME PRODUCE.

Value of—	1933-34.		1934-35.	
	HOME PRODUCE ONLY.		HOME PRODUCE ONLY.	
	Total Exports.	Percentage to Total Exports.	Total Exports.	Percentage to Total Exports.
	£		£	
Agricultural and Dairy Products	6,112,822	31·30	6,541,866	35·95
*Pastoral	12,453,389	63·76	10,423,320	57·27
Mineral	743,586	3·81	971,855	5·34
Other	220,715	1·13	261,464	1·44
Totals	19,530,512	100·00	18,198,505	100·00

* Exclusive of Furred Skins:—1933-34, £16,148; 1934-35, £25,935.

Table No. 25

RETURN FOR TWO YEARS SHOWING THE DETAILS OF PASTORAL PRODUCTS EXPORTED Oversea.

Value of—	1933-34.	1934-35.	Increase or — Decrease, 1934-35.
	HOME PRODUCE ONLY.		
	Exports Oveisea.	Exports Oversea.	
	£	£	£
Pastoral Products—			
Wool	9,973,880	7,370,371	— 2,603,509
Live stock (Horses, Cattle, and Sheep)	26,836	39,563	12,727
*Meat (all kinds, including Extract)	2,036,349	2,547,371	511,022
Tallow	116,040	231,898	115,858
†Hides and skins	240,005	185,973	— 54,032
Leather	14,588	9,023	— 5,565
All other	45,691	39,121	— 6,570
Totals	12,453,389	10,423,320	— 2,030,069

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* Exclusive of Bacon, Ham, Pork and Poultry, these being treated as products of Agriculture —1933-34, £185,484; 1934-35, £288,786.

† Exclusive of Furred Skins—1933-34, £16,148; 1934-35, £25,935.

Table No. 26.

RETURN FOR TEN YEARS SHOWING THE NUMBER OF COMMON GOATS IN THE STATE AND THE NUMBER KILLED FOR FOOD, &c.

Year ended 31st December.	Number Depastured at end of Year.	Number Killed for Food.	Dead Weight: Lb.	Average Dead Weight: Lb.	Number of Skins Sold or Utilised.
1926	86,012	14,252	395,028	27·72	9,409
1927	95,227	16,657	470,378	28·24	10,447
1928	85,622	14,888	417,305	28·03	9,261
1929	82,360	14,983	434,380	28·99	9,581
1930	69,460	11,195	307,177	27·44	6,169
1931	73,739	14,483	375,872	25·95	6,632
1932	76,986	15,175	421,016	27·74	6,057
1933	81,768	16,973	479,312	28·24	8,082
1934	79,333	12,670	325,719	25·71	5,380
1935	*75,063	11,359	321,926	28·34	†2,807

* Including 297 Saanen Goats. † Value of Skins, £168.

Table No. 27.

RETURN FOR TEN YEARS SHOWING THE NUMBER OF ANGORA GOATS IN THE STATE AND THE NUMBER KILLED FOR FOOD, MOHAIR OBTAINED, &c.

Year ended 31st December.	Number Depastured at end of Year.	Mohair Sold or Utilised.	Number Killed for Food.	Dead Weight: Lb.	Average Dead Weight: Lb.	Number of Skins Sold or Utilised.
		Lb.				
1926	3,343	1,532	590	17,003	28·82	487
1927	2,354	1,765	303	9,629	31·78	239
1928	2,938	2,137	673	19,429	28·87	648
1929	2,215	1,425	467	14,127	30·25	360
1930	1,840	1,288	276	8,034	29·11	310
1931	1,683	972	205	5,955	29·05	145
1932	1,516	756	227	6,633	29·22	166
1933	1,375	444	178	5,195	29·19	106
1934	1,089	267	147	4,202	28·59	98
1935	1,179	*192	151	3,970	26·29	†88

* Value of Mohair, £2. † Value of Skins, £5.

Table No. 28.

RETURN FOR TEN YEARS SHOWING THE NUMBER OF CAMELS, DONKEYS, AND MULES IN THE STATE, TOGETHER WITH THE CENTESIMAL INCREASE OR DECREASE.

Year ended 31st December.	Number of Camels.	Increase or Decrease.	Number of Donkeys.	Increase or Decrease.	Number of Mules.	Increase or Decrease.
		%		%		%
1926	313	— 34·79	26	13·64	906	— 2·05
1927	410	40·58	23	— 11·54	898	— 0·88
1928	466	5·91	25	8·70	980	9·13
1929	354	— 24·03	30	20·00	972	— 0·82
1930	215	— 39·27	18	— 40·00	627	— 35·49
1931	433	101·40	33	83·33	838	33·65
1932	502	15·94	44	33·33	798	— 4·77
1933	702	39·84	91	106·82	1,015	27·19
1934	614	— 12·54	42	— 53·85	758	— 25·32
1935	453	— 26·22	64	52·38	774	2·11

— Decrease.

Table No. 29.

RETURN FOR TEN YEARS SHOWING THE NUMBER OF CALVES RETURNED AS BRANDED AND THE CENTESIMAL INCREASE OR DECREASE. *For details for* 1935 *see Table* 31.

Year ended 31st December.	Male.	Increase or Decrease.	Female.	Increase or Decrease.	Total.	Increase or Decrease.
		%		%		%
1926	409,702	— 33·12	450,373	— 31·84	860,075	— 32·46
1927	374,849	— 8·51	420,822	— 6·56	795,671	— 7·49
1928	468,581	25·01	520,986	23·80	989,567	24·37
1929	468,006	— 0·12	528,548	1·45	996,554	0·71
1930	506,434	8·21	565,408	6·97	1,071,842	7·55
1931	489,148	— 3·41	559,251	— 1·09	1,048,399	— 2·19
1932	449,537	— 8·10	534,252	— 4·47	983,789	— 6·16
1933	488,928	8·76	572,843	7·22	1,061,771	7·93
1934	560,511	14·64	643,368	12·31	1,203,879	13·38
1935	501,533	— 10·52	594,058	— 7·66	1,095,591	— 8·99

— Decrease.

Table No 30.

RETURN SHOWING THE AREA OF THE VARIOUS PETTY SESSIONS DISTRICTS OF THE STATE, THE NUMBER OF HORSES, CATTLE, SHEEP AND PIGS THEREIN, AND THE INCREASE OR DECREASE OF CATTLE AND SHEEP ON 31ST DECEMBER, 1935.

tty Sessions District.	Area in sq. Miles.	Horses.	Cattle.				Sheep.				Pigs.
					1935.				1935		
		1935.	1934.	1935.	Increase.	Decrease.	1934.	1935.	Increase.	Decrease.	1935.
lavale	4,419	823	5,384	4,865	..	519	237,653	176,960	..	60,693	..
lora	324	3,405	15,561	15,515	..	46	7,057	8,294	1,237	..	3,624
pha	7,983	3,817	57,567	59,749	2 182	..	181,085	202,130	21,045	..	157
amac	6,757	2,002	3,969	4,745	776	..	392,631	475,164	82,533	..	3
herton	682	3,908	48 609	47,303	..	1,306	198	185	..	13	9,089
ıgathella	5,264	2,150	28,822	32,025	3,203	..	333,498	203,096	..	130,402	37
r	2,103	7,027	36,427	31,544	..	4,883	1,438	120	..	1,318	576
ınana	1,875	1,974	60,467	61,831	1,364	..	240	1,443	1,203	..	152
ırcaldine	3,862	1,585	3,696	3,803	107	..	539,249	439,346	..	99,903	90
audesert	968	4,377	80,295	78,132	..	2,163	815	1,513	698	..	15,032
ggenden	653	2,667	48,431	47,694	..	737	241	196	..	45	3,166
ackall	8,297	2,697	5,752	5,702	..	50	799,436	632,270	..	167,166	114
ollon	5,987	1,501	8,923	10,391	1,468	..	464,676	476,422	11,746	..	31
ouia	21,027	2,027	41,221	41,318	97	..	237,776	150,581	..	87,195	6
owen	1,900	3,548	28,225	25,122	..	3,103	41	68	27	..	279
isbane	549	3,719	22,203	22,970	767	..	124	279	154	..	2,242
ındaberg	1,460	6,158	61,224	63,404	2,180	..	1,910	2,322	412	..	1,350
ırke	18,228	2,623	81,109	77,825	..	3,284	23,219	23,486	267	..	100
boolture	304	842	9,352	9,694	342	..	138	509	371	..	1,082
irns	842	2,482	4,477	5,315	838	..	94	106	12	..	309
mooweal	10,246	2,312	64,184	70,511	6,327	..	15,025	19,805	4,780	..	108
pe River	8,083	4,916	88,515	88,364	..	151	280	353	73	..	129
rdwell	1,057	1,810	6,509	7,255	746	..	..	..	..	..	97
ıarleville	9,023	3,172	26,423	17,719	..	8,704	862,432	873,849	11,417	..	131
ıarters Towers	9,921	9,432	168,044	171,386	3,342	..	1,110	851	..	259	722
ıilders	647	2,046	14,783	15,245	462	..	32	..	..	32	339
ıillagoe	8,667	2,362	30,120	29,200	..	920	..	..	..	..	12
ıinchilla	2,311	3,787	66,886	69,066	2,180	..	34,520	42,393	7,873	..	2,358
ermont	15,011	8,478	148,177	133,764	..	14,413	647,251	640,572	..	6,679	200
eveland	200	577	1,497	1,314	..	183	23	..	..	23	169
ifton	408	5,796	19,581	21,789	2,208	..	28,562	25,052	..	3,510	6,471
oncurry	39,468	10,422	204,674	188,026	..	16,648	986,614	688,511	..	298,103	158
en	25,396	2,218	26,250	28,695	2,445	..	..	..	..	..	15
ollinsville	6,310	3,934	149,397	140,788	..	8,609	50	70	20	..	210
ındamine	3,592	3,607	69,696	76,170	6,474	..	44,649	70,147	25,498	..	831
ok	23,921	3,739	83,488	86,066	2,578	..	..	..	..	..	..
ow's Nest	365	2,944	28,580	28,446	..	134	194	73	..	121	10,581
oydon	6,880	1,786	22,109	22,842	733	..	..	..	..	..	..
ınnamulla	13,557	3,158	16,942	17,747	805	..	1,288,898	1,139,819	..	149,079	113
ılby	6,797	9,953	139,190	151,103	11,913	..	591,533	638,623	47,090	..	8,617
amantina	22,684	1,158	41,465	37,804	..	3,661	..	..	..	..	3
ouglas	787	1,332	3,813	4,118	305	..	..	..	..	..	166
ıgandan	522	4,593	44,036	43,237	..	799	153	83	..	70	12,371
dsvold	2,383	2,732	55,085	65,184	10,099	..	370	392	22	..	1,263
nerald	4,731	3,062	52,115	56,319	4,204	..	277,608	309,889	32,281	..	155
sk	563	1,800	32,161	32,214	53	..	2,113	2,005	..	108	3.125
heridge	19,640	9,318	183,569	184,424	855	..	..	..	..	..	224
ılo	5,476	878	7,562	7,734	172	..	297,325	324,363	27,038	..	..
ıtton	504	3,791	28,785	27,799	..	986	472	417	..	55	6,798
ıyndah	3,727	6,420	139,355	139,599	244	..	554	368	..	186	8,572
n Gin	1,056	3,492	56,739	58,877	2,138	..	237	245	8	..	591
adstone	3,457	6,913	150,434	158,856	8,422	..	2,565	2,347	..	218	2,023
oodna	61	382	2,603	2,333	..	270	12	13	1	..	250
oondiwindi	4,385	3,482	50,968	55,060	4,092	..	652,828	569,986	..	82,842	308
ympie	1,634	5,895	131,135	129,460	..	1,675	782	664	..	118	17,017
arrisville	230	2,932	22,782	22,363	..	419	306	352	46	..	6,906
erberton	5,345	4,227	70,127	70,844	717	..	41	35	..	6	645
ughenden	9,944	4,373	54,599	57,719	3,120	..	767,727	659,758	..	107,969	94
ungerford	3,917	508	6,385	5,135	..	1,250	139,067	175,107	36,040	..	..
gham	3,277	6,393	36,982	36,602	..	380	88	140	52	..	944
glewood	1,450	2,269	25,776	25,617	..	159	304,173	240,215	..	63,958	611
nisfail	572	3,190	4,600	5,129	529	..	..	63	63	..	251
swich	167	1,796	16,721	15,990	..	731	115	257	142	..	1,609
isford	7,929	1,936	5,859	5,996	137	..	555,884	379,278	..	176,606	85
ılia Creek	10,647	2,826	58,045	45,595	..	12,450	577,788	290,760	..	287,028	2
ındah	10,977	1,846	21,156	18,687	..	2,469	220,244	152,812	..	67,432	1
ilcoy	305	1,231	19,655	19,009	..	646	47	159	112	..	3,648
ilkivan	333	1,093	22,312	21,696	..	616	109	109	..	..	1,333
illarney	234	2,307	13,131	13,354	223	..	2,964	4,042	1,078	..	1,761
ıidley	222	3,005	18,906	18,400	..	506	67	590	523	..	4,636
ogan	239	1,763	16,879	16,000	..	879	175	200	25	..	1,999
ongreach	12,117	4,385	14,153	7,588	..	6,565	1,413,999	837,056	..	576,943	139
owood	208	1,863	17,478	17,065	..	413	..	..	..	..	4,282
ackay	8,003	21,564	146,342	154,903	8,561	..	1,405	1,588	183	..	1,541
arburg	53	1,389	8,857	8,552	..	305	4	10	6	..	3,538
areeba	2,842	3,092	18,793	19,511	718	..	10	7	..	3	309
aroochy	702	2,971	44,230	52,258	8,028	..	227	261	34	..	8,068
aryborough	1,697	3,565	26,873	26,544	..	329	572	556	..	16	1,106
itchell	10,387	5,707	81,134	77,859	..	3,275	586,498	590,916	4,418	..	155
onto	1,773	3,883	60,238	66,764	6,526	..	997	2,466	1,469	..	3,690
ount Isa	1,395	388	1,042	1,603	561	..	..	8	8	..	40
ount Morgan	3,246	7,122	98,923	109,283	10,360	..	1,692	3,162	1,470	..	2,235
ount Perry	868	1,341	35,594	34,814	..	780	13	11	..	2	91
uttaburra	11,390	2,179	9,552	7,057	..	2,495	1,110,616	719,833	..	390,783	..
anango	1,755	10,342	122,721	115,508	..	7,213	1,992	2,226	234	..	24,017
orman	25,570	5,610	177,523	182,087	4,564	..	4,096	4,619	523	..	..
akey	1,398	8,781	86,847	89,212	2,365	..	119,689	135,751	16,062	..	23,388
ttsworth	1,862	6,172	46,344	50,769	4,425	..	181,898	205,151	23,253	..	9,314
oserpine	829	4,205	14,223	14,213	..	10	1,530	1,803	273	..	281

Table No. 30 *continued.*

RETURN SHOWING THE AREA OF THE VARIOUS PETTY SESSIONS DISTRICTS OF THE STATE, THE NUMBER OF HORSES, CATTLE, SHEEP, AND PIGS THEREIN AND THE INCREASE OR DECREASE OF CATTLE AND SHEEP ON 31ST DECEMBER, 1935.

Petty Sessions District.	Area in sq. Miles.	Horses.	Cattle.				Sheep.				Pigs.
					1935.				1935.		
		1935.	1934.	1935.	Increase.	Decrease.	1934.	1935.	Increase.	Decrease.	1935.
Quilpie	14,227	2,703	31,725	27,044	..	4,681	660,513	635,558	..	24,955	..
Ravenswood	1,152	829	16,463	13,511	..	2,952	..	..	..	..	37
Redcliffe	252	1,470	19,202	19,212	10	..	189	228	39	..	1,288
Richmond	13,354	4,869	48,397	46,277	..	2,120	961,165	565,652	..	395,513	14
Rockhampton	13,752	14,575	374,501	376,952	2,451	..	21,740	23,375	1,635	..	3,837
Roma	6,394	7,353	77,330	83,085	5,755	..	539,687	541,056	1,369	..	1,102
Rosewood	264	2,451	24,513	23,506	..	1,007	723	2,328	1,605	..	4,939
St. George { Dirranbandi	4,715	2,346	23,623	11,316	..	1,572	1,237,758	742,587	..	128,270	53
St. George { St. George	3,402	1,344		10,735				366,901			91
St Lawrence	7,129	4,230	128,978	130,845	1,867	..	2,750	2,646	..	104	105
Somerset	4,586	319	1,080	1,101	21	..	..	..	..	..	47
Southport	502	2,124	39,140	39,886	746	..	378	421	43	..	6,220
Springsure	10,230	5,059	93,220	97,837	4,617	..	247,039	297,682	50,643	..	106
Stanthorpe	1,110	1,657	10,781	11,890	1,109	..	270,237	255,244	..	14,993	169
Surat	4,248	1,751	13,668	13,868	200	..	524,618	544,418	19,800	..	25
Tambo	5,553	1,941	23,166	20,633	..	2,533	483,476	338,024	..	145,452	6
Taroom	5,448	3,300	111,248	112,796	1,548	..	22,062	23,331	1,269	..	17
Texas	530	1,159	11,483	10,492	..	991	116,640	106,095	..	10,545	431
Thargomindah	22,819	2,477	50,672	50,342	..	330	27,396	44,860	17,464	..	72
Tiaro	2,607	3,107	55,255	55,024	..	231	299	239	..	60	2,595
Toogoolawah	801	3,524	56,768	54,266	..	2,502	504	425	..	79	7,698
Toowoomba	543	6,580	46,034	46,253	219	..	17,116	15,287	..	1,829	10,811
Townsville	2,619	2,457	29,197	23,409	..	5,788	1,265	949	..	316	1,019
Warwick	1,358	7,854	51,912	53,251	1,339	..	248,764	241 515	..	7,249	5,090
Wienholt	2,269	10,333	146,062	142,939	..	3,123	520	662	142	..	27,442
Windorah	17,832	2,831	54,606	48,743	..	5,863	184,152	127,825	..	56,327	2
Winton	23,146	3,729	45,165	27,020	..	18,145	1,048,346	624,641	..	423,705	28
Woodford	202	1,058	25,812	17,880	..	7,932	355	328	..	27	2,657
Wynnum	28	367	1.995	1,610	..	385	4	84	80	..	232
Yeulba	591	833	9,279	10,094	815	..	4,742	3,052	..	1,690	20
Total in State, 1935	670,500	441,913	..	*6,033,004	155,652	175,289	..	18,060,093	455,909	3,969,998	304,888
Total in State, 1934		448,604	..	†6,052,641	..	..	..	21,574,182	..	..	269,873
Increase, 1935	..	..	..	..	..	..	..	..	..	..	35,015
Decrease, 1935	..	6,691	..	..	19,637		..	..	3,514,089		..
Centisimal Increase, 1935	..	..	..	..	..	..	..	..	..	..	12·97
Centisimal Decrease, 1935	..	1·49	..	..	0·32		..	..	16·29		..

* Including 955,746 Dairy Cattle.

† Including 939,254 Dairy Cattle.

NOTE.—Totals of (1) Aramac and Muttaburra ; (2) Banana and Eidsvold ; (3) Caboolture, Gympie, Kilcoy, Maroochy, and Woodford are comparable only as wholes, owing to alterations in the internal boundaries of these districts.

Table No. 31.

RETURN SHOWING NUMBER OF CALVES RETURNED AS BRANDED IN THE SEVERAL PETTY SESSIONS DISTRICTS OF THE STATE DURING THE YEARS 1934 AND 1935, THE CENTESIMAL INCREASE OR DECREASE, ALSO THE NUMBER OF CATTLE AND SHEEP KILLED FOR FARM OR STATION USE DURING THE LATTER YEAR.

Petty Sessions District.	Male.			Female.			Cattle Killed.	Sheep Killed
	1934	1935.	Increase or Decrease.	1934.	1935.	Increase or Decrease.	1935.	1935.
davale	503	361	— 28·23	522	347	— 33·52	95	4,043
llora	1,287	1,034	— 19·66	1,518	1,411	— 7·05	54	150
lpha	5,828	6,479	11·17	5,843	6,587	12·73	356	1,776
ramac	650	508	— 21·85	582	470	— 19·24	55	5,456
therton	413	379	— 8·23	3,356	3,055	— 8·97	132	..
ugathella	3,989	4,098	2·73	3,797	4,201	10·64	376	3,607
yr	3,134	2,070	— 33·95	3,047	2,091	— 31·38	70	..
anana	7,758	7,310	— 5·77	7,811	7,222	— 7·54	391	16
arcaldine	370	377	1·89	359	374	4·18	30	6,757
eaudesert	1,981	1,822	— 8·03	5,951	5,403	— 9·21	148	128
iggenden	2,243	2,341	4·37	4,914	4,625	— 5·88	190	26
lackall	490	845	72·45	514	866	68·48	93	12,600
ollon	898	525	— 41·54	922	574	— 37·74	171	7,292
oulia	3,723	2,919	— 21·60	3,630	2,822	— 22·26	310	2,206
owen	3,211	3,487	— 22·55	3,061	2,542	— 16·96	124	..
risbane	51	43	— 15·69	1,189	1,314	10·51	5	6
undaberg	3,406	3,508	2·99	5,545	5,715	3·07	330	134
urke	10,805	5,498	— 49·12	10,950	5,704	— 47·91	545	162
boolture	118	68	— 42·37	826	921	11·50	49	9
irns	167	203	21·56	257	304	18·29	18	..
mooweal	9,613	7,480	— 22·19	9,484	7,573	— 20·15	467	150
pe River	11,429	8,179	— 28·44	11,322	8,251	— 27·12	447	17
rdwell	610	701	14·92	653	733	12·25	31	..
harleville	1,690	1,587	— 6·09	1,732	1,542	— 10·97	419	12,892
arters Towers	22,942	20,823	— 9·24	22,952	20,641	— 10·07	854	30
ilders	1,080	1,080	..	1,351	1,401	3·70	24	..
hillagoe	2,540	3,120	22·83	2,640	3,164	19·85	193	..
inchilla	7,442	6,863	— 7·79	7,879	7,584	— 3·74	301	501
lermont	20,106	13,490	— 32·91	20,187	13,457	— 33·34	907	7,387
eveland	9	7	— 22·22	60	51	— 15·00	..	..
lifton	1,143	1,138	— 0·44	2,193	2,269	3·47	87	516
loncurry	30,844	22,416	— 27·32	30,936	22,564	— 27·06	1,564	7,239
en	3,547	3,817	7·61	3,542	3,688	4·12	203	..
llinsville	16,870	12,341	— 26·85	16,953	12,365	— 27·06	561	..
ndamine	8,281	8,336	0·66	8,063	8,396	4·13	670	968
ok	9,321	10,279	10·28	8,789	9,839	11·95	483	..
row's Nest	1,173	1,149	— 2·05	2,280	2,192	— 3·86	108	..
roydon	2,423	2,515	3·80	2,489	2,534	1·81	176	..
nnamulla	1,487	1,826	22·80	1,446	1,694	17·15	201	15,639
alby	12,080	12,016	— 0·53	15,152	15,102	— 0·33	655	7,817
iamantina	4,782	3,479	— 27·25	3,870	3,328	— 14·01	92	..
ouglas	128	106	— 17·19	213	232	8·92	9	..
ugandan	1,436	1,235	— 14·00	3,166	3,098	— 2·15	72	25
idsvold	5,286	4,703	— 11·03	6,141	6,478	5·49	213	14
merald	6,548	7,833	19·62	6,384	7,707	20·72	216	3,109
sk	1,222	1,276	4·42	1,712	1,834	7·13	64	64
theridge	20,140	19,671	— 2·33	19,768	19,563	— 1·04	1,001	..
ulo	392	654	66·84	378	656	73·54	52	4,168
atton	1,105	1,120	1·36	1,844	1,779	— 3·52	61	36
ayndah	9,690	8,180	— 15·58	13,536	11,942	— 11,78	473	47
in Gin	4,923	5,113	3·86	5,473	5,788	5·76	276	27
ladstone	10,946	10,401	— 4·98	13,856	13,329	— 3·80	572	80
oodna	53	59	11·32	200	173	— 13·50	2	..
oondiwindi	6,624	6,756	1·99	6,641	6,726	1·28	739	8,938
ympie	1,449	1,706	17·74	9,513	9,717	2·14	339	..
arrisville	604	701	16·06	1,859	1,827	— 1·72	78	4
erberton	7,139	7,762	8·73	7,327	8,100	10·55	301	..
ughenden	6,283	5,011	— 20·25	6,317	4,936	— 21·86	364	7,088
ungerford	261	456	74·71	272	475	74·63	114	2,111
gham	3,475	3,249	— 6·50	3,498	3,130	— 10·52	86	4
glewood	3,273	3,125	— 4·52	3,364	3,341	— 0·68	249	4,105
nisfail	212	210	— 0·94	241	306	26·97	..	..
swich	343	322	— 6·12	1,375	1,541	12·07	8	4
isford	610	521	— 14·59	615	585	— 4·88	104	6,360
ulia Creek	7,721	3,519	— 54·42	7,858	4,053	— 48·42	222	4,930
undah	2,255	1,925	— 14·63	2,195	2,022	— 7·88	181	2,330
ilcoy	331	387	16·92	1,205	1,425	18·26	92	..
ilkivan	1,061	990	— 6·69	1,818	1,795	— 1·27	60	11
illarney	909	709	— 22·00	1,202	1,275	6·07	69	36
aidley	482	430	— 10·79	1,250	1,205	— 3·60	50	13
ogan	97	93	— 4·12	997	969	— 2·81	41	9
ongreach	1,532	655	— 57·25	1,543	691	— 55·22	76	15,375
owood	553	540	— 2·35	822	898	9·25	28	..

Table No. 31—*continued.*

RETURN SHOWING NUMBER OF CALVES RETURNED AS BRANDED IN THE SEVERAL PETTY SESSIONS DISTRICTS OF THE STATE DURING THE YEARS 1934 AND 1935, THE CENTESIMAL INCREASE OR DECREASE, ALSO THE NUMBER OF CATTLE AND SHEEP KILLED FOR FARM OR STATION USE DURING THE LATTER YEAR.

Petty Sessions District.	Male.			Female.			Cattle Killed.	Sheep Killed.
	1934.	1935.	Increase or Decrease.	1934.	1935.	Increase or Decrease.	1935.	1935.
Mackay	14,381	14,020	— 2·51	15,170	14,802	— 2·43	633	62
Marburg	98	96	— 2·04	513	707	37·82	13	..
Mareeba	1,707	1,926	12·83	1,728	1,975	14·29	90	..
Maroochy	350	401	14·57	2,660	3,520	32·33	145	4
Maryborough	989	1,099	11·12	2,112	2,202	4·26	56	2
Mitchell	10,277	9,913	— 3·54	10,747	10,063	— 6·36	723	7,152
Monto	4,549	4,483	— 1·45	7,209	6,814	— 5·48	365	47
Mount Isa	155	190	22·58	154	202	31·17	7	..
Mount Morgan	8,151	7,807	— 4·22	7,732	10,615	37·29	426	86
Mount Perry	3,355	3,449	2·80	3,386	3,463	2·27	44	..
Muttaburra	804	757	— 5·85	852	733	— 13·97	118	9,382
Nanango	5,514	5,516	0·04	10,536	9,622	— 8·68	399	114
Norman	22,413	21,092	— 5·89	22,480	21,069	— 6·28	996	..
Oakey	3,812	3,898	2·26	8,113	8,297	2·27	399	2,230
Pittsworth	2,924	2,976	1·78	4,670	4,876	4·41	135	2,680
Proserpine	1,632	1,221	— 25·18	1,706	1,342	— 21·34	51	48
Quilpie	3,684	2,628	— 28·66	3,638	2,628	— 27·76	326	6,244
Ravenswood	2,590	1,777	— 31·39	2,460	1,635	— 33·54	65	..
Redcliffe	101	95	— 5·94	855	1,254	46·67	8	..
Richmond	5,502	4,222	— 23·26	5,461	4,200	— 23·09	307	7,979
Rockhampton	39,327	36,623	— 6·88	41,472	39,874	— 3·84	1,401	289
Roma	9,956	11,275	13·25	9,978	11,433	14·58	805	6,117
Rosewood	523	431	— 17·59	1,624	1,629	0·31	42	14
St. George { Dirranbandi	2,563	896	— 21·69	2,455	898	— 20·90	234	13,226
St. George { St. George		1,111			1,044		211	6,358
St. Lawrence	15,845	13,573	— 14·34	15,889	13,329	— 16·11	487	63
Somerset	85	91	7·06	95	61	— 35·79	41	..
Southport	294	355	20·75	3,064	3,328	8·62	67	7
Springsure	11,871	13,930	17·34	11,629	14,034	20·68	615	2,196
Stanthorpe	1,175	934	— 20·51	1,226	1,008	— 17·78	78	3,068
Surat	1,674	1,723	2·93	1,639	1,655	0·98	190	6,976
Tambo	2,461	1,518	— 38·32	2,530	1,529	— 39·57	274	6,223
Taroom	14,579	13,174	— 9·64	14,798	13,499	— 8·78	764	269
Texas	1,109	940	— 15·24	1,184	1,025	— 13·43	99	1,599
Thargomindah	4,950	5,958	20·36	4,880	5,845	19·77	446	353
Tiaro	2,899	2,234	— 22·94	4,929	4,974	0·91	176	6
Toogoolawah	2,308	2,311	0·13	3,719	3,701	— 0·48	182	2
Toowoomba	1,759	1,619	— 7·96	4,593	4,474	— 2·59	75	492
Townsville	3,193	2,199	— 31·13	3,207	2,188	— 31·77	59	..
Warwick	4,590	4,082	— 11·07	5,495	4,958	— 9·77	244	2,592
Wienholt	6,269	6,154	— 1·83	11,609	11,398	— 1·82	723	16
Windorah	5,876	4,201	— 28·51	5,878	4,286	— 27·08	463	2,536
Winton	5,073	2,190	— 56·83	4,895	2,494	— 49·05	293	9,840
Woodford	429	301	— 29·84	2,021	1,589	— 21·38	39	23
Wynnum	3	3	..	82	62	— 24·39	..	..
Yeulba	1,191	1,206	1·26	1,145	1,212	5·85	67	100
Total	560,511	501,533	— 10·52	643,368	594,058	— 7·66	31,578	254,807

NOTE.—Totals of (1) Aramac and Muttaburra; (2) Banana and Eidsvold; (3) Caboolture, Gympie, Kilcoy, Maroochy and Woodford are comparable only as wholes owing to alterations in the internal boundaries of these districts.

Table No. 32.

RETURN FOR TEN YEARS SHOWING THE NUMBER OF CATTLE AND SHEEP KILLED IN THE STATE FOR FARM OR STATION USE, ALSO THE CENTESIMAL INCREASE OR DECREASE. *For details for* 1935, *see Table* 31.

Year ended 31st December.	Cattle.	Increase or Decrease.	Sheep.	Increase or Decrease.
1926	38,617	— 13·65	193,542	3·98
1927	35,885	— 7·07	193,629	0·04
1928	32,068	— 10·64	197,845	2·18
1929	28,194	— 12·08	229,329	15·91
1930	24,802	— 12·03	259,586	13·19
1931	26,857	8·29	268,541	3·45
1932	28,791	7·20	268,876	0·12
1933	30,973	— 7·58	267,644	— 0·46
1934	32,519	4·99	261,198	— 2·41
1935	31,578	— 2·89	254,807	— 2·45

— Decrease.

Table No. 33.

RETURN FOR TEN YEARS SHOWING THE NUMBER OF CALVES RETURNED AS BRANDED IN THE SEVERAL PASTORAL DISTRICTS OF THE STATE.

Year ended 31st December.	BURKE.		BURNETT.		COOK.		DARLING DOWNS.		GREGORY NORTH.		GREGORY SOUTH.		LEICHHARDT.		MARANOA.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1926	53,868	54,364	27,965	36,879	42,088	43,275	31,968	37,972	16,771	17,460	15,812	16,332	53,921	53,611	22,966	22,900
1927	57,957	58,682	31,635	40,062	40,746	42,888	28,374	34,813	8,684	9,299	10,816	11,022	42,804	43,503	18,010	17,843
1928	67,279	67,954	35,508	47,385	54,459	55,892	35,612	43,770	1,535	1,552	12,676	12,870	66,044	65,327	16,660	16,514
1929	73,733	76,538	37,483	49,664	49,074	51,864	38,616	46,373	2,826	2,828	6,183	5,819	67,980	67,752	18,052	17,758
1930	69,158	68,250	41,851	54,769	52,893	55,761	40,859	48,230	7,318	7,482	5,669	5,566	79,533	80,083	18,128	17,545
1931	72,541	72,645	39,334	54,289	52,572	55,490	42,215	52,101	11,092	11,157	7,917	7,295	75,063	75,376	18,016	17,825
1932	63,072	63,691	32,830	48,809	48,969	53,136	44,526	57,120	14,596	14,336	9,527	9,042	65,958	66,764	18,508	18,902
1933	64,464	65,906	30,842	47,942	41,914	45,924	45,911	58,292	16,281	16,190	10,366	10,050	82,555	83,947	22,041	21,023
1934	76,453	76,672	35,896	55,500	50,347	52,507	53,131	66,898	21,606	20,745	11,955	11,877	91,545	91,961	22,584	22,844
1935	51,533	52,400	33,479	52,346	52,904	55,378	50,662	65,805	16,225	16,265	9,772	9,748	90,752	91,665	21,951	22,012

Year ended 31st December.	MITCHELL.		MORETON.		NORTH KENNEDY.		PORT CURTIS.		SOUTH KENNEDY.		WARREGO.		WIDE BAY.		TOTAL.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1926	5,777	5,585	15,882	29,238	40,764	40,754	24,059	27,737	26,388	26,163	18,207	17,681	13,266	20,422	409,702	450,373
1927	5,380	5,548	15,406	29,274	40,249	40,221	22,629	26,418	27,388	28,626	11,162	10,745	13,609	21,878	374,849	420,822
1928	7,301	7,424	20,938	37,035	53,152	53,313	32,670	37,791	36,995	36,653	12,402	12,160	15,350	25,346	468,581	520,986
1929	7,770	7,623	25,466	44,262	42,155	42,180	34,860	40,399	37,650	37,355	8,997	9,147	17,161	28,986	468,006	528,548
1930	9,719	9,737	25,456	45,725	44,827	44,962	38,956	42,872	44,004	43,734	10,282	10,360	17,781	30,332	506,434	565,408
1931	7,723	7,751	23,187	45,234	45,145	45,192	38,451	44,380	27,628	27,696	10,668	10,409	17,546	32,411	489,148	559,251
1932	9,337	9,322	18,354	44,632	36,957	37,186	34,265	41,769	26,915	27,286	12,078	11,967	13,645	30,290	449,537	534,252
1933	8,838	8,989	14,865	40,321	53,348	53,413	33,359	41,128	40,167	40,673	12,446	12,366	11,531	26,679	488,928	572,843
1934	7,204	7,174	15,424	41,115	59,897	59,714	43,146	48,408	44,845	45,718	11,974	11,860	14,504	30,375	560,511	643,368
1935	6,762	6,932	15,484	42,656	52,246	52,459	40,560	49,990	32,269	32,916	12,620	12,489	14,314	30,997	501,533	594,058

TABLE No. 34

Return for Ten Years showing the Number of Cattle and Sheep in the several Pastoral Districts of the State.

At 31st Dec.	Burke.		Burnett.		Cook.		Darling Downs.		Gregory North.		Gregory South.		Leichhardt.		Maranoa.	
	Cattle.	Sheep.	Cattle.	Sheep.	Cattle.	Sheep.	Cattle.	Sheep.	Cattle.	Sheep.	Cattle.	Sheep.	Cattle.	Sheep.	Cattle.	Sheep.
1926 ..	685,267	1,978,074	440,562	7,487	520,708	12,580	414,433	2,045,745	212,735	1,086,545	135,915	344,859	568,449	840,487	235,658	3,366,810
1927 ..	640,707	2,523,372	463,258	9,815	495,975	3,355	414,658	2,495,527	135,913	1,054,398	152,891	292,261	533,485	1,050,723	213,221	2,951,182
1928 ..	582,748	2,313,118	483,320	7,762	489,935	3,042	429,716	2,637,366	58,147	702,502	112,514	221,216	562 465	1,172,793	188,546	3,366,073
1929 ..	586,242	2,772,704	506,443	8,161	472,041	2,506	450,071	2,945,532	65,545	1,215,608	83,170	203,830	595,395	1,252,201	176,690	3,542,002
1930 ..	624,489	3,118,929	547,920	7,884	480,650	1,818	469,690	2,757,931	76,530	1,708,231	65,443	327,585	646,023	1,264,970	167,801	3,559,542
1931 ..	612,691	3,006,501	568,567	7,092	513,174	1,246	491,550	2,697,272	95,671	1,963,870	87,917	409,808	656,041	931,260	164,581	3,476,600
1932 ..	558,984	2,180,585	548,849	5,644	501,147	751	509,785	2,570,075	122,354	1,802.425	93,710	446,819	657,561	873,221	170,335	3,606,726
1933 ..	539,181	2,676,981	556,088	4,161	499,581	538	552,706	2,543,077	153,281	1,626,633	107,641	432,215	694,426	966,409	179,551	3,357,087
1934 ..	568,008	2,595,492	581,404	4,398	497,111	302	608,313	2,612,978	183,521	1,672,909	112,585	484,814	742,965	1,077,362	187,422	3,818,971
1935 ..	535,698	1,652,857	583,634	6,042	510,183	361	641,660	2,557,271	163,971	1,036,174	99,500	397,975	777,052	1,140,818	184,761	3,778,455

At 31st Dec.	Mitchell.		Moreton.		North Kennedy.		Port Curtis.		South Kennedy.		Warrego.		Wide Bay.		Total.	
	Cattle.	Sheep.	Cattle.	Sheep.	Cattle.	Sheep.	Cattle.	Sheep.	Cattle.	Sheep.	Cattle.	Sheep.	Cattle.	Sheep.	Cattle.	Sheep.
1926 ..	114,015	4,135,681	476,828	22,022	454,412	22,214	383,711	28,040	328,545	165,182	191,168	2,799,535	302,439	5,511	5,464,845	16,860,772
1927 ..	90,554	3,715,045	496,342	22,133	442,700	9,928	387,349	29,320	304,395	176,627	152,377	2,303,993	301,979	4,706	5,225,804	16,642,385
1928 ..	68,569	4,893,564	520,775	20,190	461,951	6,589	415,192	29,830	317,997	213,677	128,118	2,915,641	308,348	5,838	5,128,341	18,509,201
1929 ..	67,762	5,337,072	561,468	18,097	454,220	6,718	429,675	33,206	334,775	245,928	101,148	2,735,225	323,943	5,513	5,208,588	20,324,303
1930 ..	74,767	6,280,786	584,841	16,145	462,832	6,950	463,750	31,701	367,446	245,222	96,445	3,208,332	335,097	6,017	5,463,724	22,542,043
1931 ..	72,340	6,126,561	608,304	13,396	435,463	4,195	482,234	28,083	299,127	171,189	103,682	3,481,826	359,050	5,379	5,550,399	22,324,278
1932 ..	85,763	6,071,563	601,566	9,968	437,422	6,140	464,323	27,439	317,989	152,443	113,281	3,554,528	351,996	4,538	5,535,065	21,312,865
1933 ..	80,637	5,124,159	590,867	8,372	472,667	4,684	486,273	27,472	349,810	218,664	114,813	3,077,736	353,648	4,616	5,781,170	20,072,804
1934 ..	76,258	5,611,084	605,864	7,829	502,024	5,586	517,459	25,409	378,663	257,246	123,381	3,388,753	367,663	4,049	6,052,641	21,574,182
1935 ..	69,171	4,179,095	593,591	11,086	489,586	4,049	536,711	28,731	359,271	295,968	120,215	3,006,984	368,000	4,227	6,033,004	18,060,09

Table No. 35.

RETURN OF THE NUMBER OF HORSES, CATTLE, SHEEP, AND PIGS IN THE VARIOUS PASTORAL DISTRICTS OF THE STATE AS AT 31ST DECEMBER, 1934 AND 1935, TOGETHER WITH THE NUMERICAL AND CENTESIMAL INCREASE OR DECREASE DURING THE YEAR.

Pastoral Districts.	Year.	Horses.	Cattle.	Sheep.	Pigs.	Numerical Increase or Decrease —				Centisimal Increase or Decrease —			
						Horses.	Cattle.	Sheep.	Pigs.	Horses.	Cattle.	Sheep.	Pigs.
Burke ..	1934	30,548	568,008	2,595,492	1,263	– 811	– 32,310	– 942,635	– 827	– 2·65	– 5·69	– 36·32	– 65·48
	1935	29,737	535,698	1,652,857	436								
Burnett ..	1934	36,305	581,404	4,398	57,835	– 406	2,230	1,644	7,531	– 1·12	0·38	37·38	13·02
	1935	35,899	583,634	6,042	65,366								
Cook ..	1934	32,524	497,111	302	8,472	1,678	13,072	59	1,969	5·16	2·63	19·54	23·24
	1935	34,202	510,183	361	10,441								
Darling Downs	1934	62,017	608,313	2,619,978	61,391	814	33,347	– 62,707	6,850	1·31	5·48	– 2·39	11·16
	1935	62,831	641,660	2,557,271	68,241								
Gregory North	1934	10,342	183,521	1,672,909	311	– 840	– 19,550	– 636,735	– 290	– 8·12	– 10·65	– 38·06	– 67·20
	1935	9,502	163,971	1,036,174	102								
Gregory South	1934	6,070	112,585	484,814	5	– 52	– 13,085	– 86,839	32	– 0·86	– 11·62	– 17·91	640·00
	1935	6,018	99,500	397,975	37								
Leichhardt..	1934	38,562	742,965	1,077,362	1,609	– 88	34,087	63,456	102	– 0·23	4·59	5·89	6·34
	1935	38,474	777,052	1,140,818	1,711								
Maranoa ..	1934	20,703	187,422	3,818,971	995	– 405	– 2,661	– 80,516	332	– 1·96	– 1·42	– 2·11	33·37
	1935	20,298	184,761	3,738,455	1,327								
Mitchell ..	1934	22,137	76,258	5,611,084	422	– 2,944	– 7,087	– 1,431,989	– 24	– 13·30	– 9·29	– 25·52	– 5·69
	1935	19,193	69,171	4,179,095	398								
Moreton ..	1934	55,013	605,864	7,829	99,879	– 599	– 12,273	3,257	13,150	– 1·09	– 2·03	41·60	13·17
	1935	54,414	593,591	11,086	113,029								
North Kennedy	1934	45,208	502,024	5,586	4,522	– 1,614	– 12,438	– 1,537	249	– 3·57	– 2·48	– 27·52	5·51
	1935	43,594	489,586	4,049	4,771								
Port Curtis	1934	26,743	517,459	25,409	7,281	265	19,252	3,322	1,019	0·99	3·72	13·07	14·00
	1935	27,008	536,711	28,731	8,300								
South Kennedy	1934	23,126	378,663	257,246	1,410	– 619	– 19,392	38,722	136	– 2·68	– 5·12	15·05	9·65
	1935	22,507	359,271	295,968	1,546								
Warrego ..	1934	13,334	123,381	3,388,753	393	– 632	– 3,166	– 381,769	– 73	– 4·74	– 2·57	– 11·27	– 18·58
	1935	12,702	120,215	3,006,984	320								
Wide Bay ..	1934	25,972	367,663	4,049	24,085	– 438	337	178	4,778	– 1·69	0·09	4·40	19·84
	1935	25,534	368,000	4,227	28,863								
Total in State	1934	448,604	6,052,641	21,574,182	269,873	– 6,691	– 19,637	– 3,514,089	35,015	– 1·49	– 0·32	– 16·29	12·97
	1935	441,913	6,033,004	18,060,093	304,888								

Pastoral and Petty Sessions Districts.

Pastoral District.	Petty Sessions District.
Burke ..	Burke Camooweal Mt. Isa Richmond Cloncurry, part of Croydon, part of Hughenden, part of Julia Creek, part of Norman, part of
Burnett ..	Gayndah Monto Mount Perry Wienholt Biggenden, part of Eidsvold, part of Gin Gin, part of Nanango, part of
Cook ..	Atherton Cairns Chillagoe Coen Cook Douglas Etheridge Innisfail Mareeba Somerset Croydon, part of Herberton, part of Norman, part of
Darling Downs	Allora Chinchilla Dalby Goondiwindi Inglewood Killarney Pittsworth Stanthorpe Texas Warwick
Darling Downs —*contd.*	Clifton, part of Condamine, part of Crow's Nest, part of Oakey, part of Toowoomba, part of
Gregory North	Boulia Winton Cloncurry, part of Diamantina, part of Julia Creek, part of Jundah, part of Windorah, part of
Gregory South	Adavale, part of Diamantina, part of Quilpie, part of Thargomindah, part of Windorah, part of
Leichhardt	Banána Emerald Springsure Taroom Clermont, part of Condamine, part of Eidsvold, part of Mackay, part of Mount Morgan, part of Rockhampton, part of Roma, part of St. Lawrence, part of
Maranoa	Bollon Dirranbandi Mitchell St. George Surat Yeulba Charleville, part of Cunnamulla, part of Roma, part of
Mitchell	Barcaldine Isisford
Mitchell —*contd.*	Longreach Muttaburra Alpha. part of Aramac, part of Blackall, part of Hughenden, part of Jundah, part of Tambo, part of
Moreton	Beaudesert Brisbane Caboolture Cleveland Dugandan Esk Gatton Goodna Harrisville Ipswich Kilcoy Laidley Logan Lowood Marburg Redcliffe Rosewood Southport Toogoolawah Wynnum Clifton, part of Crow's Nest, part of Gympie, part of Kilcoy, part of Maroochy, part of Nanango, part of Oakey, part of Toowoomba, part of Woodford part of
North Kennedy	Ayr Bowen Cardwell Charters Towers Ingham
North Kennedy —*contd.*	Proserpine Ravenswood Townsville Cape River, part of Collinsville, part of Herberton. part of Mackay, part of
Port Curtis	Gladstone Bundaberg, part of Mackay, part of Mount Morgan, part of Rockhampton, part of St. Lawrence, part of
South Kennedy	Alpha, part of Aramac, part of Cape River, part o Clermont, part of Collinsville, part of Mackay, part of
Warrego	Augathella Eulo Hungerford Adavale, part of Blackall, part of Charleville, part of Cunnamulla, part of Quilpie, part of Tambo, part of Thargomindah, part of
Wide Bay	Childers Kilkivan Maryborough Tiaro Biggenden, part of Bundaberg, part of Gin Gin, part of Gympie, part of Kilcoy, part of Maroochy, part of Woodford, part of

Table No. 36.

RETURN FOR TEN-YEARS SHOWING THE DENSITY OF LIVE STOCK IN THE STATE.
(In Converting Horses and Cattle to terms of Sheep, Ten Head of Sheep are taken as Equal to One Horse or Head of Cattle)

At 31st Dec.	HORSES.			CATTLE.			SHEEP.			ALL KINDS IN TERMS OF SHEEP.		
	Acres per Head.	Number per Square Mile.	Number per Capita Population.	Acres per Head.	Number per Square Mile.	Number per Capita Population.	Acres per Head.	Number per Square Mile.	Number per Capita Population.	Acres per Head.	Number per Square Mile.	Number per Capita Population.
1926 ..	751	0·85	0·66	79	8·15	6·34	25	25·15	19·55	5·56	115·18	89·53
1927...	783	0·82	0·63	82	7·79	5·96	26	24·82	18·99	5·77	110·94	84·86
1928 ..	821	0·78	0·59	84	7·65	5·76	23	27·61	20·77	5·72	111·88	84·19
1929...	858	0·75	0·55	82	7·77	5·77	21	30·31	22·52	5·54	115·45	85·79
1930...	891	0·72	0·53	79	8·15	5·96	19	33·62	24·58	5·23	122·29	89·42
1931...	914	0·70	0·50	77	8·28	5·97	19	33·29	24·01	5·20	123·08	88·74
1932	948	0·67	0·48	78	8·26	5·89	20	31·79	22·69	5·29	121·09	86·43
1933 ..	954	0·67	0·47	74	8·62	6·09	21	29·94	21·15	5·21	122·87	86·79
1934...	957	0·67	0·47	71	9·03	6·31	20	32·18	22·48	4·96	129·14	90·24
1935...	971	0·66	0·46	71	9·00	6·21	24	26·94	18·60	5·18	123·50	85·31

Table No. 37.

RETURN SHOWING THE NUMBER OF OWNERS AND THE SIZES OF HERDS OF CATTLE UNDER VARIOUS GROUPINGS IN THE SEVERAL PASTORAL DISTRICTS OF THE STATE AS AT 31ST DECEMBER, 1935.

Pastoral Districts.	1 to 100.		101 to 200.		201 to 300.		301 to 500.		501 to 1,000.	
	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle.
Burke	382	10,196	46	7,147	24	6,313	27	10,678	36	26,929
Burnett	4,147	190,980	702	96,827	188	47,307	117	45,298	112	75,541
Cook	1,871	54,062	137	19,079	38	9,535	32	13,133	17	11,973
Darling Downs ..	7,281	260,185	882	125,633	245	59,776	144	55,169	86	61,252
Gregory North ..	153	4,319	7	1,068	2	563	11	4,113	7	5,069
Gregory South ..	67	2,236	10	1,443	7	1,893	5	1,880	10	7,447
Leichhardt	2,024	43,944	243	36,133	126	31,890	137	53,640	163	115,517
Maranoa	1,299	39,244	174	24,131	61	14,995	47	18,791	26	17,797
Mitchell	704	16,237	51	7,206	17	4,140	15	5,914	15	11,591
Moreton	10,397	344,392	796	109,943	173	42,319	95	36,681	50	33,456
North Kennedy ..	2,216	41,846	106	14,988	57	13,937	48	18,895	51	37,147
Port Curtis	2,782	102,784	404	57,277	135	33,783	103	40,513	105	71,778
South Kennedy ..	1,040	25,794	83	11,634	29	7,188	51	20,518	53	38,090
Warrego	455	14,753	57	7,753	26	6,458	21	7,653	25	19,138
Wide Bay	5,320	172,652	518	70,714	101	24,726	68	26,050	44	30,688
Total	40,138	1,323,624	4,216	590,976	1,229	304,823	921	358,926	800	563,413

Pastoral Districts.	1,001 to 5,000.		5,001 to 10,000.		10,001 and upwards.		Total.		Percentage to Grand Total.	
	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle.
Burke	36	73,608	24	177,987	13	222,840	588	535,698	1·22	8·88
Burnett	61	106,060	3	21,621	..	..	5,330	583,634	11·07	9·67
Cook	51	130,586	10	75,628	10	196,187	2,166	510,183	4·50	8·46
Darling Downs ..	43	79,645	..	..	..	..	8,681	641,660	18·03	10·64
Gregory North ..	18	43,824	7	52,177	3	52,838	208	163,971	0·43	2·72
Gregory South ..	12	25,445	5	37,199	2	21,957	118	99,500	0·25	1·65
Leichhardt	163	325,652	24	170,276	..	..	2,880	777,052	5·98	12·88
Maranoa	20	35,942	5	33,861	..	..	1,632	184,761	3·39	3·06
Mitchell	8	18,530	1	5,553	..	..	811	69,171	1·69	1·15
Moreton	18	26,800	..	..	..	..	11,529	593,591	23·95	9·84
North Kennedy ..	75	166,749	10	64,224	8	131,800	2,571	489,586	5·34	8·11
Port Curtis	87	160,664	8	48,567	2	21,345	3,626	536,711	7·53	8·90
South Kennedy ..	52	115,984	14	94,940	3	45,123	1,325	359,271	2·75	5·95
Warrego	17	26,550	2	13,470	2	24,440	605	120,215	1·26	1·99
Wide Bay	21	43,170	..	..	..	..	6,072	368,000	12·61	6·10
Total	682	1,379,209	113	795,503	43	716,530	48,142	6,033,004	100·00	100·00

Table No. 38.

RETURN SHOWING THE NUMBER OF OWNERS AND THE SIZES OF HERDS OF CATTLE UNDER VARIOUS GROUPINGS IN THE SOUTHERN, CENTRAL, AND NORTHERN DIVISIONS OF THE STATE AS AT 31ST DECEMBER, 1935.

Division.	1–100.		101–200.		201–300.		301–500.		501–1,000.		1,001–5,000.		5,001–10,000.		10,001 and Upwards.		Total.		Percentage to Grand Total.	
	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle.	Owners.	Cattle.
Southern	29,262	1,036,019	3,228	449,650	860	212,205	544	209,949	395	274,185	222	407,559	18	129,261	4	46,397	34,533	2,765,225	71·73	45·84
Central	5,497	158,910	635	91,126	237	59,448	241	94,799	274	193,413	275	553,783	44	299,029	5	74,183	7,208	1,524,691	14·97	25·27
Northern	5,379	128,695	353	50,200	132	33,170	136	54,178	131	95,815	185	417,867	51	367,213	34	595,950	6,401	1,743,088	13·30	28·89
Total	40,138	1,323,624	4,216	590,976	1,229	304,823	921	358,926	800	563,413	682	1,379,209	113	795,503	43	716,530	48,142	6,033,004	100·00	100·00

Table No. 39.

RETURN SHOWING THE NUMBER OF OWNERS AND THE SIZES OF FLOCKS OF SHEEP UNDER VARIOUS GROUPINGS IN THE SEVERAL PASTORAL DISTRICTS OF THE STATE AS AT 31ST DECEMBER, 1935.

Pastoral Districts.	1 TO 500.		501 TO 1,000		1,001 TO 2,000.		2,001 TO 5,000.		5,001 TO 10,000.		10,001 TO 20,000.		20,001 TO 50,000.		50,001 TO 100,000.		100,001 AND UPWARDS.		Total.		Percentage to Grand Total.	
	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.
Burke	70	12,818	29	22,520	56	83,801	113	380,680	75	522,095	26	348,636	10	282,307	..	..	..	..	379	1,652,857	6·85	9·15
Burnett	88	4,499	2	1,543	..	..	..	..	..	..	..	..	..	..	..	..	..	..	90	6,042	1·63	0·03
Cook	11	361	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11	361	0·20	0·00
Darling Downs ..	723	127,170	342	261,397	285	411,088	295	938,444	56	390,495	18	249,197	6	179,480	..	..	..	..	1,725	2,557,271	31·18	14·16
Gregory North ..	24	3,952	13	10,413	21	32,009	75	261,554	24	151,727	15	210,908	12	365,611	..	..	..	..	184	1,036,174	3·33	5·74
Gregory South ..	5	649	1	855	8	12,317	22	72,199	12	85,775	6	85,436	2	49,174	1	91,570	..	..	57	397,975	1·03	2·21
Leichhardt ..	119	13,939	51	38,536	66	100,302	102	333,284	33	222,176	12	175,520	8	204,345	1	52,716	..	..	392	1,140,818	7·08	6·32
Maranoa	128	25 821	124	95,715	179	274,623	333	1,103,785	128	892,017	47	625,377	20	583,317	..	..	1	137,800	960	3,738,455	17·35	20·70
Mitchell	67	11,777	41	31,605	84	133,794	263	928,266	169	1,158,459	71	986,210	26	745,281	3	183,703	..	..	724	4,179,095	13·08	23·14
Moreton	229	6,848	1	900	2	3,338	..	..	..	..	..	..	..	..	..	..	..	..	232	11,086	4·19	0·06
North Kennedy ..	38	2,745	2	1,304	..	..	..	..	..	..	..	..	..	..	..	..	..	..	40	4,049	0·72	0·02
Port Curtis ..	86	5,197	4	2,934	2	3,100	3	7,300	..	..	1	10,200	..	..	..	..	..	..	96	28,731	1·73	0·16
South Kennedy ..	21	1,927	10	7,980	6	9,479	19	64,806	9	66,046	1	19,200	2	53,529	1	73,001	..	..	69	295,968	1·25	1·64
Warrego	22	4,256	15	11,350	40	64,972	221	749,343	107	736,405	49	668,080	15	463,447	5	309,131	..	..	474	3,006,984	8·57	16·65
Wide Bay	99	2,271	..	..	1	1,956	..	..	..	..	..	..	..	..	..	..	..	..	100	4,227	1·81	0·02
Total ..	1,730	224,230	635	487,052	750	1,130,779	1,446	4,839,661	613	4,225,195	246	3,378,764	101	2,926,491	11	710,121	1	137,800	5,533	18,060,093	100·00	100·00

Table No. 40.

RETURN SHOWING THE NUMBER OF OWNERS AND THE SIZES OF FLOCKS OF SHEEP UNDER VARIOUS GROUPINGS IN THE SOUTHERN, CENTRAL, AND NORTHERN DIVISIONS OF THE STATE AS AT 31ST DECEMBER, 1935

Division.	1 to 500.		501 to 1,000		1,001 to 2,000		2,001 to 5,000		5,001 to 10,000		10,001 to 20,000		20,001 to 50,000		50,001 to 100,000		100,001 and upwards.		Total.		Percentage to Grand Total.	
	Owners	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.	Owners.	Sheep.
Southern	1,339	176,936	499	382,016	527	786,273	883	2,902,863	306	2,122,562	120	1,628,090	43	1,275,418	6	400,701	1	137,800	3,724	9,812,659	67·31	54·33
Central	260	30,664	103	79,306	164	255,874	446	1,543,223	229	1,560,584	97	1,356,314	48	1,368,766	5	309,420	..	..	1,352	6,504,151	24·43	36·02
Northern	131	16,630	33	25,730	59	88,632	117	393,575	78	542,049	29	394,360	10	282,307	..	..	..	..	457	1,743,283	8·26	9·65
Total	1,730	224,230	635	487,052	750	1,130,779	1,446	4,839,661	613	4,225,195	246	3,378,764	101	2,926,491	11	710,121	1	137,800	5,533	18,060,093	100·00	100·00

Table No. 41.

RETURN FOR TEN YEARS SHOWING THE NUMBER OF HORSES, CATTLE, SHEEP, AND PIGS, IN THE SOUTHERN, CENTRAL, AND NORTHERN DIVISIONS OF THE STATE.

At 31st Dec.	Southern.				Central.				Northern.			
	Horses.	Cattle.	Sheep.	Pigs.	Horses.	Cattle.	Sheep.	Pigs.	Horses.	Cattle.	Sheep.	Pigs.
1926	268,496	2,327,553	8,620,821	158,517	125,561	1,292,426	6,187,335	9,658	177,565	1,844,866	2,052,616	15,487
1927	258,952	2,322,633	8,118,128	166,178	114,805	1,149,911	5,928,454	10,155	174,576	1,753,260	2,595,803	15,614
1928	253,377	2,299,516	9,224,903	187,582	109,510	1,115,865	6,886,846	10,852	159,603	1,712,960	2,397,452	17,330
1929	244,604	2,332,195	9,520,339	204,291	104,807	1,184,999	7,943,392	11,571	150,693	1,691,394	2,860,572	20,175
1930	235,769	2,408,854	9,957,562	189,248	101,806	1,290,133	9,353,534	9,270	144,640	1,764,737	3,230,947	19,010
1931	233,390	2,524,266	10,160,434	199,717	103,419	1,310,131	9,072,850	8,095	132,665	1,716,002	3,090,994	14,874
1932	225,662	2,536,342	10,274,672	193,652	100,097	1,319,371	8,753,213	7,177	126,727	1,679,352	2,284,980	12,420
1933	223,465	2,610,345	9,504,715	195,853	99,099	1,406,193	7,787,203	7,843	127,460	1,764,632	2,780,886	13,752
1934	225,244	2,749,310	10,407,190	244,848	98,953	1,521,144	8,465,324	9,453	124,407	1,782,187	2,701,668	15,572
1935	223,671	2,765,225	9,812,659	277,471	94,963	1,524,691	6,504,151	10,387	123,279	1,743,088	1,743,283	17,030

Table No. 42.

RETURN FOR TEN YEARS SHOWING THE NUMBER OF CATTLE, SHEEP, ETC., SLAUGHTERED AT FACTORIES, SLAUGHTER-HOUSES, AND ON HOLDINGS, FOR CONSUMPTION AS FOOD IN THE STATE, TOGETHER WITH THE AVERAGE DRESSED WEIGHT OF EACH ANIMAL AND THE ESTIMATED QUANTITY CONSUMED PER CAPITA.

Year.	Mean Population for the Year. ¶	* Number Slaughtered.					Average Dressed Weight.					‡ Consumption per Capita.					
		Cattle.	Sheep.	Calves.	Lambs.	Pigs.	Cattle.	Sheep.	Calves.	Lambs.	Pigs.	Beef.	Mutton.	Veal.	Lamb.	Pork.	Total.
							lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1926	857,071	321,795	656,458	51,170	19,866	72,145	550	44	79	31	83	206·48	33·70	4·72	0·72	6·99	252·61
1927	870,643	316,661	641,636	43,122	24,329	68,580	572	42	83	30	83	208·01	30·95	4·11	0·84	6·54	250·45
1928	884,815	307,791	725,375	45,793	19,570	73,917	540	42	76	30	83	187·81	34·43	3·93	0·66	6·93	233·76
1929	897,569	287,023	858,563	43,527	26,403	83,526	539	43	47	31	89	172·33	41·12	2·28	0·91	8·28	224·92
1930	910,319	260,522	1,110,997	46,286	31,058	79,407	525	41	52	30	87	150·45	50·42	2·65	1·03	7·60	212·15
1931	924,825	255,213	1,210,090	47,662	38,509	96,616	532	42	52	30	84	146·65	54·68	2·70	1·25	8·82	214·10
1932	935,575	271,809	1,186,476	54,598	62,542	95,631	522	42	60	30	84	151·49	53·57	3·53	1·98	8·59	219·16
1933	945,454	§302,669	§1,170,363	§76,086	§55,193	§342,357	531	41	61	28	83	169·79	50·76	4·92	1·64	30·05	257·16
1934	955,584	326,334	983,326	69,907	40,176	369,704	528	41	63	29	83	180·18	42·43	4·80	1·23	32·38	261·02
1935	966,198	350,928	852,897	77,523	34,779	402,700	516	41	62	31	83	187·42	36·21	4·97	1·11	34·53	264·24

* Includes slaughterings on Farms and Stations, of which, in 1935, there were 31,578 Cattle, 254,807 Sheep, and 5,606 Pigs.

‡ Figures revised on adjusted census populations. The figures from 1930 onwards are calculated on actual production, previous to this they were calculated on averages shown herein.

§ Includes, for the first time, animals slaughtered at abattoir for meatworks.

¶ Adjusted census populations.

Table No. 43.

RETURN FOR TEN YEARS OF LIVE STOCK SLAUGHTERED AT MEATWORKS AND BACON FACTORIES IN THE STATE FOR PRESERVATION AS FOOD, FOR FREEZING, OR FOR TALLOW, WITH THE QUANTITY AND VALUE OF MEAT, TALLOW, LARD, ETC., PRODUCED.

Year.	Number of Establishments.	Average Number of Workers Employed.	NUMBER SLAUGHTERED.								MEAT PRODUCED.										Extract and Essence of Meat Produced.	Quantity of Tallow Produced.	Quantity of Lard Produced.	Total Value of all Products shown here.
			Cattle.			Sheep.			Lambs.	Pigs.	Beef.			Mutton.			Lamb.		Bacon and Ham. (b)	Pork (b)				
			For Freezing, Local Consumption, &c.	For Preserving.	For Boiling Down.	For Freezing, Local Consumption, &c.	For Preserving.	For Boiling Down.			Frozen and Local Consumption.	Preserved.	Salted.	Frozen and Local Consumption	Preserved.	Salted.	Frozen and Local Consumption.	Preserved.						
	(a)	(a)									Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Tons.	Lb.	£
1925-26	19	4,211	363,011	29,480	2,513	34,702	35	...	63	243,505	201,983,990	15,570,166	32,800	1,265,319	1,451	...	2,205	...	18,013,086	913,026	141,283	7,767	895,925	4,107,662
1926-27	20	3,564	179,694	14,043	938	2,942	...	...	...	208,016	100,744,934	9,859,202	27,662	121,956		...	..	...	17,971,692	674,137	60,516	3,042	767,376	2,320,059
1927-28	19	3,813	364,860	14,919	433	3,777	...	.	...	241,871	215,856,923	9,053,287	70,263	161,757	..	...		...	17,986,523	649,078	77,764	5,302	839,959	3,847,224
1928-29	18	3,872	316,077	14,322	1,213	58,936	...	64	1,516	307,371	194,444,901	9,293,369	345,125	2,623,254	..	1,688	46,859	...	21,710,960	1,289,112	84,283	6,455	1,112,954	4,179,275
1929-30	17	3,454	287,239	14,803	1,162	179,550	7,060	133	18,269	283,065	174,004,557	7,752,595	25,897	7,558,955	262,169		535,898	...	18,924,040	2,235,411	78,843	3,682	989,890	4,003,892
1930-31	17	3,225	328,790	11,676	1,199	486,163	828	465	41,434	328,649	199,829,633	5,810,442	380,549	20,746,284	29,695	18,687	1,289,983	.	19,842,633	7,274,913	65,894	4,158	993,936	3,838,161
1931-32	16	2,747	227,204	9,051	1,519	466,292	7,922	4,588	34,573	311,599	132,573,771	3,654,234	3,000	20,563,645	299,958	.	1,110,969	...	19,639,692	5,161,284	81,743	3,457	1,083,818	2,438,287
1932-33	16	2,684	371,114	10,625	1,465	707,088	4,040	325	121,616	316,727	188,728,987	4,303,516	13,404	29,366,445	162,658	.	3,636,277	...	16,701,874	7,027,620	31,459	2,444	893,216	3,162,820
1933-34	17	2,767	489,548	2,482	3,125	539,843	500	667	53,714	343,727	239,961,131	988,773	21,449	21,720,273	13,089	..	1,507,122	...	18,573,812	8,795,106	40,744	4,638	1,174,738	3,358,359
1934-35	18	2,989	592,886	4,682	9,997	583,524	1,090	2,238	71,750	426,141	253,559,544	1,884,791	52,133	23,835,251	26,425		2,084,877	...	21,474,749	12,108,774	52,184	5,232	1,262,876	4,167,544

(a) Not including 2 Rabbit-freezing Works.

b Not including farmers' bacon and pork.

N.B.—6,080 pigs killed by farmers and 421,752 lb. of pork, valued at £11,070, and 276,695 lb. and bacon and ham, valued at £10,810, made therefrom during 1934 are not included in this table.

Table No. 44.

RETURN FOR TEN YEARS SHOWING THE QUANTITY AND VALUE OF OTHER PRODUCTS OF MEATWORKS AND BACON FACTORIES IN THE STATE.

Year.	No.	Hides.		Skins.		Edible Fats.		Bones.		Hoofs and Horns.	Hair.		Oils, &c.		Manure.		All Other Products.	Total Value.
		Number.	£.	Number.	£	Lb.	£	Tons.	£	£	Lb.	£	Gallons.	£	Tons.	£	£	£
1925-26	19	394,110	471,505	34,800	26,081	10,753,803	213,596	570	5,867	20,144	173,899	5,218	34,134	7,633	5,970	50,198	453,734	1,253,976
1926-27	20	194,641	260,470	2,942	1,189	5,926,129	113,821	223	2,122	7,929	129,149	2,927	14,797	3,424	4,761	43,963	424,203	860,048
1927-28	19	369,927	718,253	4,048	1,849	9,070,227	197,418	348	3,379	9,397	159,603	4,602	19,899	4,735	5,626	54,959	579,453	1,574,045
1928-29	18	329,162	463,693	63,146	22,857	10,574,003	231,239	306	3,324	11,211	101,132	4,033	18,584	5,242	4,831	49,046	552,685	1,343,330
1929-30	17	298,455	298,953	209,757	35,619	10,862,045	203,281	194	2,156	8,466	56,523	2,395	13,832	3,142	4,066	45,096	488,046	1,087,154
1930-31	17	338,653	325,698	532,484	73,520	13,031,746	182,898	316	3,541	10,239	46,460	2,773	18,125	3,817	4,935	48,653	411,852	1,062,991
1931-32	16	233,985	189,009	456,858	87,305	8,771,038	99,432	159	1,834	4,546	23,170	1,172	11,902	2,363	3,616	29,821	365,949	781,431
1932-33	16	329,482	286,139	881,262	165,083	11,436,961	118,513	143	1,470	7,238	30,340	1,394	13,487	2,618	3,634	29,764	256,405	868,624
1933-34	17	324,729	314,594	373,831	93,275	15,908,027	175,014	324	3,388	9,512	44,383	2,085	24,013	4,840	5,742	45,945	388,639	1,037,292
1934-35	8	411,850	367,367	849,920	158,834	18,648,859	216,797	508	5,018	10,901	61,138	2,252	22,041	4,381	8,243	57,222	444,207	1,266,979

NOTE.—The Total Value of Production of the Cattle Industry for 1934-35 has been estimated at, approximately, £4,400,000.

Table No. 45.

Return showing the Pure Breeds of Cattle Returned in the Several Petty Sessions Districts of the State as at 31st December, 1935.

Petty Sessions District.	Aberdeen Angus.	Ayrshire.	Devon.	Friesian.	Guernsey.	Hereford.	Jersey.	Milking Shorthorn and Aust. Illawarra Shorthorn.	Polled Hereford.	Red Polled.	Shorthorn.	Crossed and Unspecified.	Totals.
Adavale	..	..	..	..	..	..	..	..	..	..	1,549	3,316	4,865
Allora	..	..	..	..	1	2	9	7	..	..	55	15,441	15,515
Alpha	..	..	..	..	..	..	..	..	..	..	20,765	38,984	59,749
Aramac	106	..	..	..	..	..	11	8	..	..	307	4,313	4,745
Atherton	..	..	7	68	32	..	1,763	5,257	..	..	545	39,631	47,303
Augathella	..	..	..	13	..	883	66	..	10	..	1,131	29,922	32,025
Ayr	..	23	..	..	..	..	64	138	..	430	1,529	29,360	31,544
Banana	..	..	..	100	..	20,151	90	478	..	..	139	40,873	61,831
Barcaldine	124	..	..	..	..	..	7	43	..	..	464	3,165	3,803
Beaudesert	31	53	..	..	21	122	855	1,852	..	..	797	74,401	78,132
Biggenden	2	84	..	7	65	4	1,050	1,350	3	..	3	45,126	47,694
Blackall	20	100	..	..	..	..	70	73	..	..	1,376	4,063	5,702
Bollon	..	..	..	..	..	159	108	..	..	..	3,386	6,738	10,391
Boulia	..	..	..	..	..	..	..	..	..	..	21,323	19,995	41,318
Bowen	8	14	..	..	..	857	9	55	..	10	263	23,906	25,122
Brisbane	..	131	..	47	..	..	735	403	..	..	..	21,654	22,970
Bundaberg	7	92	..	2	..	1,479	374	438	..	..	77	60,935	63,404
Burke	..	..	..	..	..	..	..	..	..	..	50	77,775	77,825
Caboolture	..	..	..	..	..	..	202	34	..	..	1	9,457	9,694
Cairns	..	..	..	..	..	..	141	24	..	..	81	5,069	5,315
Camooweal	..	..	..	..	..	..	..	..	..	..	48,710	21,801	70,511
Cape River	20	..	..	..	..	2,187	40	13	..	..	16,858	69,246	88,364
Cardwell	..	..	..	..	..	..	1	85	..	30	..	7,139	7,255
Charleville	1	..	..	..	..	1,455	129	71	..	15	1,376	14,672	17,719
Charters Towers	15	5	302	..	..	..	280	97	..	..	8,559	162,128	171,386
Childers	..	..	..	..	..	12	199	136	..	..	69	14,829	15,245
Chillagoe	..	..	..	..	..	..	20	..	..	..	30	29,150	29,200
Chinchilla	48	..	..	128	..	1,473	118	1,612	3	..	518	65,166	69,066
Clermont	174	..	..	..	..	19	86	94	29	..	*66,451	66,911	133,764
Cleveland	..	..	..	..	..	..	2	1	..	..	..	1,311	1,314
Clifton	1	..	..	..	2	31	74	259	..	..	56	21,366	21,789
Cloncurry	..	..	..	..	..	..	7	..	..	22	71,588	116,409	188,026
Coen	..	3	..	..	..	..	..	..	..	..	..	28,692	28,695
Collinsville	..	..	..	..	..	11	..	..	..	40	15,568	125,169	140,788
Condamine	227	1	..	..	..	1,895	10	405	3	15	1,714	71,900	76,170
Cook	12	..	52	..	..	12	..	2	..	..	9,856	76,132	86,066
Crow's Nest	..	..	..	..	..	3	566	428	..	..	37	27,412	28,446
Croydon	..	..	..	..	..	..	..	..	..	..	..	22.842	22,842
Cunnamulla	246	..	1	..	..	29	47	10	..	..	9,089	8,325	17,747
Dalby	394	211	..	181	3	6,160	960	1,159	100	..	2,415	139,520	151,103
Diamantina	..	..	..	..	..	..	..	..	..	..	6,920	30,884	37,804
Dirranbandi	517	10	..	..	..	70	..	23	..	..	1,646	9,050	11,316
Douglas	..	..	..	..	..	..	..	..	..	..	..	4,118	4,118
Dugandan	..	..	..	39	..	163	347	682	..	..	53	41,953	43,237
Eidsvold	61	..	..	73	..	12,214	188	513	..	..	26	52,109	65,184
Emerald	1	28	..	..	..	4,408	3	38	..	..	6,860	44,981	56,319

* Including 391 Polled Shorthorn.

Table No. 45.—*continued.*

Return showing the Pure Breeds of Cattle Returned in the Several Petty Sessions Districts of the State as at 31st December, 1935—*continued.*

Petty Sessions District.	Aberdeen Angus.	Ayrshire.	Devon.	Friesian.	Guernsey.	Hereford.	Jersey.	Milking Shorthorn and Aust. Illawarra Shorthorn.	Polled Hereford.	Red Polled.	Shorthorn.	Crossed and Unspecified.	Totals.
Esk	..	..	..	2	..	1,242	44	224	..	..	52	30,650	32,214
Etheridge	..	..	5	..	..	1,791	..	..	..	..	110	182,518	184,424
Eulo	..	..	..	..	..	..	..	..	..	..	1,995	5,739	7,734
Gatton	..	119	..	15	..	20	333	121	..	..	17	27,174	27,799
Gayndah	424	..	..	12	76	15,705	873	3,451	..	..	1,441	117,617	139,599
Gin Gin	2	2	..	..	..	10,466	150	42	151	..	140	47,924	58,877
Gladstone	390	52	..	201	..	23,182	980	1,833	236	50	3,317	128,615	158,856
Goodna	..	..	..	..	..	..	115	2	..	..	..	2,216	2,333
Goondiwindi	169	51	..	..	..	6,381	4	90	..	..	5,924	42,441	55,060
Gympie	500	212	..	101	109	721	2,947	4,615	..	..	1,095	119,160	129,460
Harrisville	..	1	..	..	..	5	95	813	..	..	4	21,445	22,363
Herberton	6	..	165	..	..	30	191	164	..	..	2,752	67,536	70,844
Hughenden	21	5	..	..	..	128	248	..	..	..	1,680	55,637	57,719
Hungerford	..	..	..	..	..	..	..	..	..	..	14	5,121	5,135
Ingham	..	..	..	3	..	..	40	31	..	5	..	36,523	36,602
Inglewood	420	..	..	..	2	1,222	33	367	..	..	2,310	21,263	25,617
Innisfail	..	..	..	..	..	..	43	94	..	..	5	4,987	5,129
Ipswich	..	..	..	..	..	3	470	133	..	..	12	15,372	15,990
Isisford	..	..	..	..	..	..	12	..	..	..	496	5,488	5,996
Julia Creek	32	..	..	..	..	†2	15	..	..	..	24,651	20,895	45,595
Jundah	..	..	..	..	..	..	..	..	..	..	7,620	11,067	18,687
Kilcoy	..	..	..	11	..	..	79	189	..	..	..	18,730	19,009
Kilkivan	..	2	4	..	..	449	316	629	..	..	..	20,296	21,696
Killarney	..	..	772	..	..	20	135	338	..	..	..	12,089	13,354
Laidley	..	..	..	1	..	..	258	606	..	..	..	17,535	18,400
Logan	..	139	..	2	..	..	233	132	..	..	9	15,485	16,000
Longreach	211	..	..	..	..	..	58	47	..	..	3,013	4,259	7,588
Lowood	..	..	..	..	..	959	2	1	..	..	..	16,103	17,065
Mackay	268	32	..	18	..	920	629	693	..	4	6,341	145,998	154,903
Marburg	..	..	..	25	..	..	63	138	..	..	..	8,326	8,552
Mareeba	..	..	..	20	..	..	138	54	..	..	851	18,448	19,511
Maroochy	..	66	..	3	209	1	2,010	3,014	..	..	6	46,949	52,258
Maryborough	..	479	..	6	..	495	360	352	..	..	304	24,548	26,544
Mitchell	7	..	..	49	..	3,376	21	2	..	..	2,676	71,728	77,859
Monto	34	..	..	20	1	5,464	544	1,921	70	..	56	58,654	66,764
Mount Isa	..	..	..	10	..	..	8	..	..	..	..	1,585	1,603
Mount Morgan	..	35	..	20	..	5,247	963	1,047	..	1,408	113	100,450	109,283
Mount Perry	..	..	..	..	..	..	1	3	..	..	..	34,810	34,814
Muttaburra	51	..	..	35	..	..	26	63	..	..	2,576	4,306	7,057
Nanango	550	28	1	227	60	4,288	1,821	3,745	9	301	1,796	102,682	115,508
Norman	..	..	200	..	..	14,285	7	..	..	..	16,765	150,830	182,087
Oakey	631	282	..	79	24	1,116	1,285	1,109	169	67	741	83,709	89,212

† Zebu.

Table No. 45.—*continued.*

RETURN SHOWING THE PURE BREEDS OF CATTLE RETURNED IN THE SEVERAL PETTY SESSIONS DISTRICTS OF THE STATE AS AT 31ST DECEMBER, 1935—*continued.*

Petty Sessions District.	Aberdeen Angus.	Ayrshire.	Devon.	Friesian.	Guernsey.	Hereford.	Jersey.	Milking Shorthorn and Aust. Illawarra Shorthorn.	Polled Hereford.	Red Polled.	Shorthorn.	Crossed and Unspecified.	Totals.
Pittsworth	8	336	..	155	..	1,497	70	393	..	50	637	47,623	50,769
Proserpine	50	..	..	..	..	..	150	140	..	..	..	13,873	14,213
Quilpie ..	12	..	..	..	..	..	..	..	..	..	4,732	22,300	27,044
Ravenswood	..	..	..	..	..	..	..	..	..	..	..	13,511	13,511
Redcliffe	..	97	..	2	11	..	112	59	..	..	12	18,919	19,212
Richmond	..	..	..	..	..	8,703	135	80	..	478	10,478	26,403	46,277
Rockhampton	206	97	2,300	7	..	‡40,784	1,184	1,826	421	470	2,720	326,937	376,952
Roma ..	440	..	..	..	..	970	176	627	10	30	13,536	67,296	83,085
Rosewood	4	..	..	..	..	..	127	240	..	..	1	23,134	23,506
St. George	..	..	..	..	..	50	5	3	..	..	4,282	6,395	10,735
St. Lawrence	437	..	..	..	..	8,922	..	..	11	..	2,785	118,690	130,845
Somerset	1	..	..	..	..	..	..	1	..	..	..	1,099	1,101
Southport	..	9	..	..	63	..	706	1,463	..	..	157	37,488	39,886
Springsure	21	..	..	..	..	1,308	8	..	..	1	6,312	90,187	97,837
Stanthorpe	784	..	1	..	..	162	129	2	..	..	10	10,802	11,890
Surat ..	3	..	..	..	..	120	33	..	..	..	2,541	11,171	13,868
Tambo ..	..	..	..	..	..	..	81	20	..	..	15,794	4,738	20,633
Taroom ..	..	..	6	..	..	21,961	..	78	..	..	15,102	75,649	112,796
Texas ..	..	..	..	..	1	220	157	4	..	..	423	9,687	10,492
Thargomindah ..	..	..	..	..	..	..	..	..	..	..	4,159	46,183	50,342
Tiaro ..	245	2	..	..	..	1,731	599	1,737	..	150	16	50,544	55,024
Toogoolawah	1,757	..	12	206	..	1,338	302	652	1	..	2,359	47,639	54,266
Toowoomba	..	93	..	242	42	..	827	925	..	42	312	43,770	46,253
Townsville	..	..	..	25	..	..	50	349	..	57	934	21,994	23,409
Warwick	520	5	..	59	..	1,103	461	681	..	389	§1,092	48,941	53,251
Wienholt	646	57	..	316	..	13,743	1,532	3,981	1	498	1,525	120,640	142,939
Windorah	..	..	..	..	..	..	..	..	..	..	3,543	45,200	48,743
Winton ..	1	..	..	..	..	1	80	1	..	..	11,594	15,343	27,020
Woodford	154	1	..	..	2	2	319	233	..	..	69	17,100	17,880
Wynnum	..	..	..	..	..	..	38	57	..	..	..	1,515	1,610
Yeulba ..	..	..	..	..	..	1,240	1	..	..	..	..	8,853	10,094
Totals ..	11,020	2,957	3,828	2,530	724	‖255,172	31,463	55,403	1,227	4,562	¶516,247	5,147,871	6,033,004

‡ Including 30 Zebu. ‖ Including 32 Zebu. § Including 2 Polled Shorthorn. ¶ Including 393 Polled Shorthorn.

Table No. 46.

Return showing Details of Sheep Shorn and Wool Produced in the several Pastoral Districts of the State during the Twelve Months ended 30th June, 1935.

Pastoral District.	Classification of Sheep Shorn.						Result of Clip.				All Wool Expressed as *Greasy.
	Ewes.	Wethers.	Weaners and Hoggets.	Lambs.	Rams.	Total.	Greasy Wool.		Scoured Wool.		
							Bales.	Lb.	Bales.	Lb.	Lb.
Burke	1,532,346	859,779	286,544	305,389	37,235	3,021,293	41,237	13,327,132	14,056	2,914,008	19,640,816
Burnett	1,488	572	445	343	25	2,873	47	15,104	..	..	15,104
Cook	98	46	..	10	2	156	3	652	..	..	652
Darling Downs	936,173	1,169,288	243,540	161,587	16,876	2,527,464	59,882	18,009,692	9	1,621	18,013,204
Gregory North	962,179	421,514	207,868	189,532	22,750	1,803,843	22,986	7,469,719	13,683	2,816,713	13,572,597
Gregory South	288,503	77,423	64,390	52,577	9,459	492,352	10,454	3,511,794	800	159,554	3,857,494
Leichhardt	393,509	458,121	72,119	141,175	8,790	1,073,714	22,204	7,250,082	6	1,181	7,252,641
Maranoa	1,785,370	1,284,844	382,908	346,174	33,541	3,832,837	93,479	28,976,785	1,569	305,324	29,638,320
Mitchell	3,276,179	1,445,133	824,639	471,164	87,331	6,104,446	106,699	35,252,113	20,593	4,377,976	44,737,728
Moreton	2,348	2,426	353	395	66	5,588	126	36,116	..	..	36,116
North Kennedy	2,347	899	201	276	46	3,769	56	16,594	10	1,688	20,251
Port Curtis	11,457	6,704	3,381	1,566	287	23,395	457	138,736	..	..	138,736
South Kennedy	88,163	106,397	21,988	35,562	2,049	254,159	5,183	1,698,975	205	41,197	1,788,235
Warrego	1,823,481	737,104	447,385	406,708	46,677	3,461,355	79,354	26,319,379	3,245	649,790	27,727,257
Wide Bay	916	1,423	70	44	20	2,473	41	13,649	..	..	13,649
Total	11,104,557	6,571,673	2,555,831	2,112,502	265,154	22,609,717	442,208	142,036,522	54,176	11,269,052	166,452,800
Quantity of wool returned as greasy by growers but subsequently scoured							23,228	7,460,197	16,553	3,443,168	
Total remaining greasy							418,980	134,576,325			
Total scoured							..	..	70,729	14,712,220	
Quantity of wool fellmongered							..	..	12,003	2,496,836	5,409,811
Grand total scoured and fellmongered							..	..	82,732	17,209,056	
Estimated quantity of wool on skins other than fellmongered							..	..	..	..	2,115,865
Quantity of dead wool returned by owners excluded from clip							..	..	..	..	109,937
Grand total all wool produced expressed as greasy							..	..	..	..	174,088,413
Estimated value of total wool produced							..	..	†£7,587,353		

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* Scoured wool has been converted into its greasy equivalent on the basis of 2¼ lb. greasy being required to produce 1 lb. scoured wool.

† Based on average price realised at Brisbane wool sales for the 1934-35 clip.

Table No. 47.

Return showing the Average Weight per Fleece in the Pastoral Districts of the State for Ten Years.

Pastoral District.	Average Weight of Clip per Sheep in Greasy Wool.										Increase or Decrease 1935 on 1934.
	1925-6.	1926-7.	1927-8.	1928-9.	1929-30.	1930-1.	1931-2.	1932-3.	1933-4	1934-5.	
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb	Lb.
Burke	6·44	5·48	6·76	6·56	6·99	6·84	7·19	7·27	7·49	6·50	— ·99
Burnett	5·76	6·07	5·04	5·32	5·62	6·10	5·88	6·56	5·90	5·26	— ·64
Cook	6·72	4·15	4·76	4·21	5·01	5·84	5·22	6·24	5·62	4·18	— 1·44
Darling Downs ..	7·18	7·08	7·39	7·41	7·26	7·58	7·59	7·19	7·21	7·13	— ·08
Gregory North ..	6·73	5·72	7·05	6·60	7·91	7·82	7·70	8·39	8·34	7·52	— ·82
Gregory South ..	7·39	7·83	7·07	7·60	7·79	8·27	7·97	7·94	8·00	7·83	— ·17
Leichhardt	6·38	5·39	6·65	6·51	6·64	6·69	6·27	7·09	6·86	6·75	— ·11
Maranoa	7·08	7·96	7·57	7·63	7·89	7·75	7·94	7·68	7·61	7·73	·12
Mitchell	7·11	5·88	7·38	7·59	7·79	8·04	7·38	7·92	8·06	7·33	— ·73
Moreton	5·97	6·55	5·88	6·42	6·72	6·25	6·90	6·67	5·26	6·46	1·20
North Kennedy ..	5·37	5·88	6·15	5·60	5·63	4·54	5·66	6·44	6·02	5·37	— ·65
Port Curtis	6·31	5·63	5·16	5·25	5·14	5·20	6·20	5·95	5·60	5·93	·33
South Kennedy ..	6·02	5·77	7·20	6·69	6·66	6·59	6·04	7·43	7·36	7·04	— ·32
Warrego	7·46	7·51	7·32	7·63	7·63	8·08	8·38	8·07	7·92	8·01	·09
Wide Bay	4·50	5·28	5·13	5·32	6·23	5·54	5·74	7·03	5·87	5·52	— ·35
State	6·99	6·60	7·24	7·31	7·52	7·67	7·60	7·75	7·74	7·36	— ·38

Table No. 48.

Return showing Dead Wool and Skins obtained on Sheep Holdings, Value of Machinery thereon, and Average Weight of Greasy and Scoured Bales in the various Pastoral Districts of the State during the Twelve Months ended 30th June, 1935.

Pastoral District.	Dead Wool and Skins Sold or Utilised by Wool Growers.		Machinery on Sheep Holdings.	Average Weight per Bale of Wool Clip.	
	Dead Wool.	Sheep Skins.	Value.	Greasy.	Scoured.
	Lb.	No.	£	Lb.	Lb.
Burke	3,366	15,010	293,665	323	207
Burnett	..	60	181	321	..
Cook	..	..	50	217	..
Darling Downs	43,959	28,578	402,958	301	180
Gregory North	4,315	13,497	393,098	325	206
Gregory South	1,002	3,667	88,007	336	199
Leichhardt	15,903	6,897	201,691	327	197
Maranoa	19,018	28,089	359,179	310	195
Mitchell	16,890	46,274	794,784	330	213
Moreton	37	467	1,676	287	..
North Kennedy	..	16	638	296	169
Port Curtis	..	201	5,186	304	..
South Kennedy	..	1,001	54,437	328	201
Warrego	5,447	28,630	353,319	332	200
Wide Bay	..	196	81	333	..
Total	109,937	172,583	2,948,950	321	208

Table No. 49.

Return showing the Total Number of Sheep Shorn and the Result of the Clip in each of the Three Financial Divisions of the State for the Twelve Months ended 30th June, 1935.

Division.	Total Number of Sheep Shorn.	Result of the Clip.				Total Clip.		Average per Fleece in Grease.
		Greasy.		Scoured.		Expressed as Greasy.	Per Centage to Total.	
		Bales.	Lb.	Bales.	Lb.	Lb.		Lb.
Southern	10,381,272	244,599	77,228,381	5,629	1,117,470	79,649,565	47·85	7·67
Central	9,111,999	154,520	50,861,090	34,458	7,230,953	67,127,414	40·33	7·37
Northern	3,116,446	43,089	13,947,051	14,089	2,920,629	19,675,821	11·82	6·31
Total ..	22,609,717	442,208	142,036,522	54,176	11,269,052	166,452,800	100·00	7·36

Table No. 50.

RETURN FOR TEN YEARS SHOWING THE PROPORTION OF THE CLIP IN EACH OF THE THREE FINANCIAL DIVISIONS TO THE TOTAL CLIP OF THE STATE.

Financial Division.	1925-6.	1926-7.	1927-8.	1928-9.	1929-30.	1930-1.	1931-2.	1932-3.	1933-4.	1934-5.
	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Southern	39·20	55·20	50·08	50·60	46·89	44·71	47·04	46·56	45·73	47·85
Central	47·72	33·58	36·47	37·23	40·28	42·37	38·87	42·60	40·83	40·33
Northern	13·08	11·22	13·45	12·17	12·83	12·92	14·09	10·84	13·44	11·82

Table No. 51.

RETURN SHOWING THE BREEDS OF SHEEP IN THE SEVERAL PASTORAL DISTRICTS OF THE STATE ON 31ST DECEMBER, 1935; ALSO THE NUMBER OF SHEEP UNDER ONE YEAR, AND ONE YEAR AND OVER, ON THAT DATE.

Pastoral District.	BREEDS.				Total Sheep on 31st Dec., 1935.	AGES.		
	Merino.	Pure Breeds other than Merino.	Merino Comeback.	*Crossbreeds and Unspecified.		Under One Year.	One Year and Over.	* Unspecified.
Burke	1,652,857	..	..	..	1,652,857	107,814	1,545,043	..
Burnett	1,683	*a* 251	1,744	2,364	6,042	797	4,498	747
Cook	57	*b* 2	..	302	361	46	96	219
Darling Downs	2,420,516	*c* 4,538	73,912	58,305	2,557,271	210,447	2,339,754	7,070
Gregory North	1,028,586	*d* 7,500	..	88	1,036,174	73,333	960,826	2,015
Gregory South	397,975	..	..	..	397,975	74,938	323,037	..
Leichhardt	1,130,296	..	5,938	4,584	1,140,818	125,526	1,014,091	1,201
Maranoa	3,733,526	*e* 457	2,676	1,796	3,738,455	429,718	3,304,557	4,180
Mitchell	4,178,673	..	..	422	4,179,095	372,062	3,802,719	4,314
Moreton	5,260	*f* 413	994	4,419	11,086	1,340	7,540	2,206
North Kennedy	1,308	*g* 30	420	2,291	4,049	517	3,088	444
Port Curtis	9,866	*e* 11,536	3,309	4,020	28,731	5,156	22,550	1,025
South Kennedy	294,518	..	94	1,356	295,968	24,258	271,342	368
Warrego	3,006,984	..	..	..	3,006,984	379,419	2,627,565	..
Wide Bay	1,841	*h* 30	51	2,305	4,227	344	2,877	1,006
Totals	17,863,946	*j* 24,757	89,138	82,252	18,060,093	1,805,715	16,229,583	24,795
Percentage to Total Sheep ..	98·91	0·14	0·49	0·46	100·00	10·00	89·86	0·14

* Mainly butchers' and ration sheep.

a Border Leicester, 26; Corriedale, 220; Romney Marsh, 5. *b* Dorset Horn, 1; Romney Marsh, 1. *c* Border Leicester, 526; Corriedale, 3,580; Dorset Horn, 115; Leicester, 40; Lincoln, 15; Romney Marsh, 132; Southdown, 127; Shropshire, 3. *d* Polwarth. *e* Corriedale. *f* Border Leicester, 2; Corriedale, 8; Dorset Horn, 1; Romney Marsh, 401; Shropshire, 1. *g* Romney Marsh. *h* Border Leicester, 2; Romney Marsh, 28. *j* Border Leicester, 556; Corriedale, 15,801; Dorset Horn, 117; Leicester, 40. Lincoln, 15; Polworth, 7,500; Romney Marsh, 597; Southdown, 127; Shropshire, 4.

Table No. 52.

RETURN SHOWING THE RESULTS OF LAMBING, LOSSES, SHEEP KILLED FOR FOOD ON HOLDINGS, ETC., IN THE SEVERAL PASTORAL DISTRICTS OF THE STATE DURING THE YEAR 1935.

Pastoral District.	Total Sheep as per Stock Returns on 1st Jan., 1935.	Ewes Mated with Rams.	Lambs Marked.	Percentage of Lambing.	Purchases and Transfers.	Sales and Transfers.	Total *Losses.	Killed for Food on Holding.	Total Sheep as per Stock Returns on 31st Dec., 1935.	†Skins Obtained
Burke	2,595,492	889,579	143,786	16·16	390,365	419,841	1,034,872	22,073	1,652,857	15,010
Burnett	4,398	1,378	825	59·87	4,209	1,878	1,321	191	6,042	60
Cook	302	65	48	73·85	219	174	34	..	361	..
Darling Downs ..	2,619,978	594,372	237,192	39·91	1,094,991	815,575	543,677	35,638	2,557,271	28,578
Gregory North ..	1,672,909	554,395	79,909	14·41	194,499	325,220	571,219	14,704	1,036,174	13,497
Gregory South ..	484,814	222,741	82,608	37·09	39,924	83,966	119,332	6,073	397,975	3,667
Leichhardt	1,077,362	311,446	118,209	37·95	291,386	194,806	139,006	12,327	1,140,818	6,897
Maranoa	3,818,971	1,229,657	516,309	41·99	856,368	952,748	447,733	52,712	3,738,455	28,089
Mitchell	5,611,084	1,696,546	466,968	27·52	701,228	1,378,255	1,158,423	63,507	4,179,095	46,274
Moreton	7,829	2,388	1,570	65·75	9,174	5,384	1,637	466	11,086	467
North Kennedy ..	5,586	1,352	710	52·51	743	2,382	526	82	4,049	16
Port Curtis ..	25,409	9,796	5,194	53·02	3,055	1,463	3,016	448	28,731	201
South Kennedy ..	257,246	68,953	29,926	43·40	78,841	30,500	37,123	2,422	295,968	1,001
Warrego . ..	3,388,753	1,260,238	432,283	34·30	571,142	912,572	428,645	43,977	3,006,984	28,630
Wide Bay	4,049	565	346	61·24	2,961	1,500	1,442	187	4,227	196
Totals ..	21,574,182	6,843,471	2,115,883	30·92	4,239,105	5,126,264	4,488,006	254,807	18,060,093	172,583

* For details see Table No. 53.

† Year ended 30th June.

Table No. 53.

RETURN SHOWING DETAILS OF LOSSES IN SHEEP DURING THE YEAR 1935.

Pastoral District.	* Losses and the Causes thereof as Returned by Owners, and the Percentage of each Cause to Total Losses in each District.																						
	Cancer. (Senile Necrosis)		Dingoes.		Drought.		Flood.		Fly.		Lambing.		Old Age.		Shearing.		Worms.		†Other.		Total Losses.	Losses as Percentage of Total Sheep 1-1-35	Percentage of Total Losses in each Distr.
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	%
Burke	4,996	0·48	10,607	1·03	798,477	77·16	72,937	7·05	7,181	0·69	6,433	0·62	16,408	1·59	10,389	1·00	135	0·01	*a* 107,309	10·37	1,034,872	39·87	23·06
Burnett	3	0·23	357	27·02	360	27·25	14	1·06	42	3·18	219	16·58	87	6·59	7	0·53	32	2·42	*b* 200	15·14	1,321	30·04	0·03
Cook	..	..	10	29·41	..	..	2	5·88	..	..	1	2·94	..	..	..	..	..	..	*c* 21	61·77	34	11·26	0·00
Darling Downs	1,317	0·24	19,523	3·59	324,241	59·64	3,448	0·63	16,149	2·97	28,559	5·25	26,879	4·94	32,646	6·01	38,309	7·05	*d* 52,606	9·68	543,677	20·75	12·11
Gregory North	2,424	0·42	9,323	1·63	432,889	75·78	40,091	7·02	3,289	0·57	8,488	1·49	13,520	2·37	7,814	1·37	30	0·01	*e* 53,351	9·34	571,219	34·15	12·73
Gregory South	821	0·69	6,090	5·10	77,800	65·20	3,560	2·98	4,179	3·50	5,338	4·47	11,012	9·23	2,239	1·88	28	0·02	*f* 8,265	6·93	119,332	24·61	2·66
Leichhardt	1,318	0·95	12,304	8·85	66,677	47·97	2,212	1·59	20,174	14·51	6,588	4·74	18,740	13·48	5,150	3·71	1,809	1·30	*g* 4,034	2·90	139,006	12·90	3·10
Maranoa	2,011	0·45	5,960	1·33	303,716	67·83	2,775	0·62	26,937	6·02	31,900	7·12	35,126	7·85	13,191	2·95	7,289	1·63	*h* 18,828	4·20	447,733	11·72	9·97
Mitchell	6,543	0·56	13,554	1·17	972,676	83·97	10,302	0·89	20,021	1·73	22,918	1·98	67,354	5·81	12,247	1·06	221	0·02	*j* 32,587	2·81	1,158,423	20·65	25·81
Moreton	8	0·49	341	20·83	420	25·66	5	0·30	6	0·36	74	4·52	209	12·77	26	1·59	301	18·39	247	15·09	1,637	20·91	0·04
North Kennedy	..	..	222	42·21	137	26·05	30	5·70	..	..	21	3·99	46	8·74	3	0·57	15	2·85	52	9·89	526	9·42	0·01
Port Curtis	112	3·71	212	7·03	828	27·45	4	0·13	304	10·08	206	6·83	393	13·03	100	3·32	585	19·40	272	9·02	3,016	11·87	0·07
South Kennedy	345	0·93	2,749	7·41	22,388	60·31	..	..	2,534	6·83	1,030	2·77	3,762	10·13	898	2·42	50	0·13	*k* 3,367	9·07	37,123	14·43	0·83
Warrego	2,540	0·59	8,419	1·96	325,747	75·99	1,357	0·32	16,421	3·83	25,457	5·94	30,367	7·09	8,719	2·03	380	0·09	*l* 9,238	2·16	428,645	12·65	9·55
Wide Bay	..	..	68	4·72	673	46·67	300	20·80	..	..	15	1·04	32	2·22	..	..	308	21·36	46	3·19	1,442	35·61	0·03
Totals	22,438	0·50	89,739	2·00	3,327,029	74·13	137,037	3·06	117,237	2·61	137,247	3·06	223,935	4·99	93,429	2·08	49,492	1·10	290,423	6·47	4,488,006	20·80	100·00

* Losses of unmarked lambs are not taken into consideration.

† Causes included in "Other"—

a Winter rain and rain and cold off shears (67,027), marking, poison weed, travelling.

b Travelling.

c Domestic dogs.

d Winter rain and rain and cold off shears (31,347), bloat, dipping, domestic dogs, foxes, poison weed, travelling.

e Winter rain and rain and cold off shears (49,994), marking, poison weed.

f Blight, bogging, poison weed.

g Winter rain and rain and cold off shears (220), bogging, poison weed.

h Winter rain and rain and cold off shears (6,052), blight, bogging, domestic dogs, eagle hawks, foxes, poison weed, travelling.

j Winter rain and rain and cold off shears (21,588), grass seed, marking, poison weed, and travelling.

k Winter rain and rain and cold off shears (2,890), domestic dogs.

l Winter rain and rain and cold off shears (5,584), domestic dogs, marking, poison weed, travelling.

Table No. 54.

RETURN SHOWING NUMBER OF HOLDINGS IN VARIOUS GROUPINGS AND SHEEP THEREON IN THE SEVERAL PASTORAL DISTRICTS AS AT 31ST DECEMBER, 1935.

Pastoral Districts.	1 AND UNDER 50 ACRES.		50 AND UNDER 100 ACRES.		100 AND UNDER 500 ACRES.		500 AND UNDER 1,000 ACRES.		1,000 AND UNDER 5,000 ACRES.		5,000 AND UNDER 10,000 ACRES.		10,000 AND UNDER 20,000 ACRES.		20,000 AND UNDER 50,000 ACRES.		50,000 AND UNDER 100,000 ACRES.		100,000 ACRES AND UPWARDS.		TRAVELLING FLOCKS.		TOTAL.	
	Holdings.	Sheep.	Holdings.	Sheep.	Holdings.	Sheep.	Holdings.	Sheep.	Holdings.	Sheep.	Holdings.	Sheep.	Holdings.	Sheep.	Holdings.	Sheep.	Holdings.	Sheep.	Holdings.	Sheep.	No.	Sheep.	Holdings.	Sheep.
Burke..	7	68	2	130	4	425	..	..	7	3,486	15	18,307	90	229,969	180	630,845	51	413,795	23	355,832	..	..	379	1,652,857
Burnett	56	772	11	463	17	2,586	6	2,221	..	..	..	..	..	..	..	..	..	..	..	..	..	..	90	6,042
Cook	10	298	1	63	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11	361
Darling Downs ..	160	1,979	56	2,472	251	61,704	236	121,718	741	993,291	172	520,490	74	388,957	31	340,539	4	126,121	..	..	..	..	1,725	2,557,271
Gregory North ..	3	57	..	..	3	195	..	..	4	1,472	..	..	23	36,044	93	289,503	29	175,769	29	533,134	..	..	184	1,036,174
Gregory South ..	..	..	..	..	..	..	..	..	3	339	..	..	14	27,101	14	53,428	12	62,653	14	254,454	..	..	57	397,975
Leichhardt	36	439	22	890	18	2,090	18	5,102	108	109,215	79	206,413	59	230,424	40	266,731	10	252,880	2	66,634	..	..	392	1,140,818
Maranoa	16	352	10	541	25	3,855	32	11,560	249	303,990	186	439,110	207	773,674	164	936,761	45	539,631	26	728,981	..	..	960	3,738,455
Mitchell	9	156	3	147	6	1,174	4	756	34	22,389	40	58,553	188	560,467	311	1,537,792	88	985,749	40	1,005,926	1	5,986	724	4,179,095
Moreton	177	2,600	18	1,188	33	3,352	1	400	2	3,338	1	208	..	..	..	..	..	..	..	..	..	..	232	11,086
North Kennedy ..	27	746	4	257	2	495	3	723	4	1,828	..	..	..	..	..	..	..	..	..	..	..	..	40	4,049
Port Curtis	41	600	17	820	21	3,636	4	663	7	3,062	3	4,850	2	4,900	1	10,200	..	..	..	..	..	..	96	28,731
South Kennedy ..	11	235	5	266	3	656	..	..	7	5,175	5	7,890	15	36,285	14	66,540	7	73,444	2	105,477	..	..	69	295,968
Warrego	3	52	..	..	5	683	2	541	14	10,744	24	47,073	111	298,710	191	882,064	73	567,034	51	1,200,083	..	..	474	3,006,984
Wide Bay	78	1,003	12	463	8	606	..	..	..	..	2	2,155	..	..	..	..	..	..	..	..	..	..	100	4,227
Totals— Holdings ..	634	..	161	..	396	..	306	..	1,180	..	527	..	783	..	1,039	..	319	..	187	..	1	..	5,533	..
Sheep	..	9,357	..	7,700	..	81,457	..	143,684	..	1,458,329	..	1,305,049	..	2,586,531	..	5,014,403	..	3,197,076	..	4,250,521	..	5,986	..	18,060,093
Average Size of Flocks	15		48		206		470		1,236		2,476		3,303		4,826		10,022		22,730		5,986		3,264	

Government Statistician's Office,

Brisbane, 4th November, 1936.

J. B. BRIGDEN,
Government Statistician.

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